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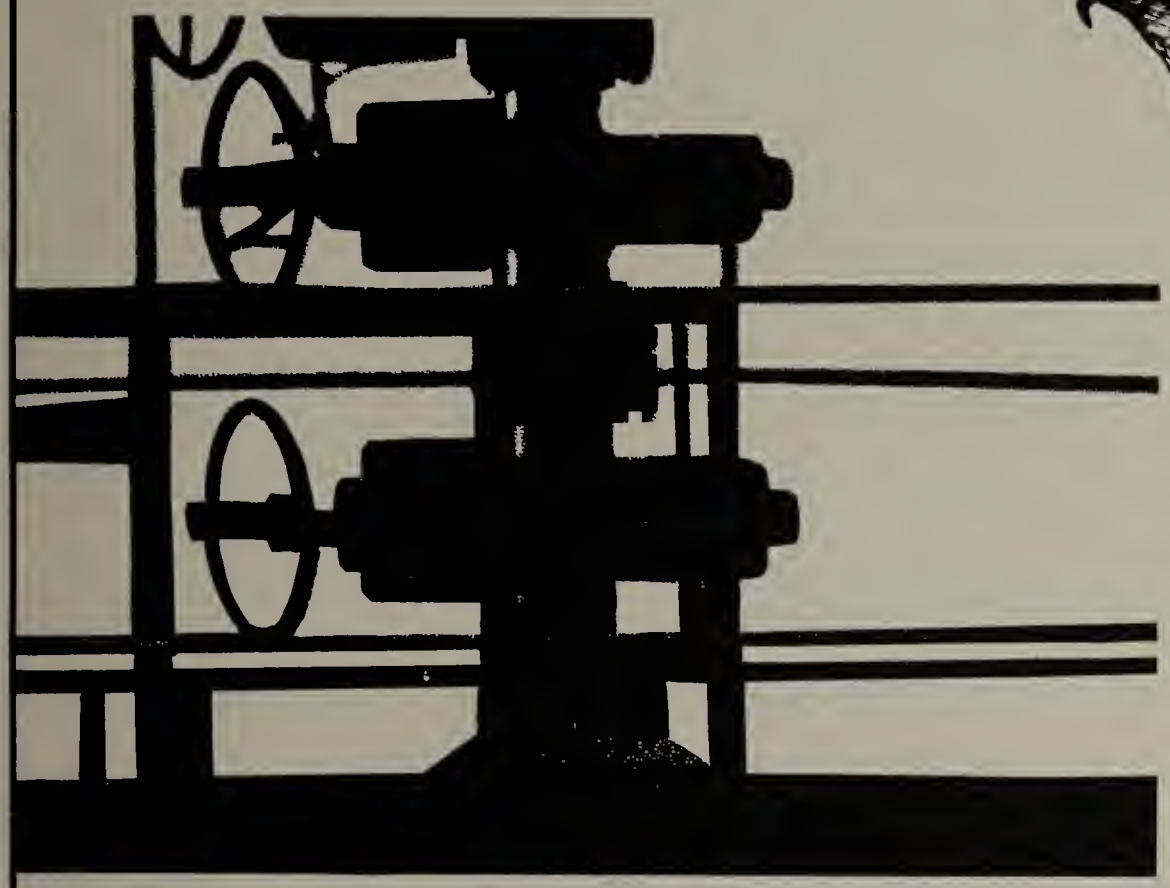
RILEY RIDGE
NATURAL GAS PROJECT

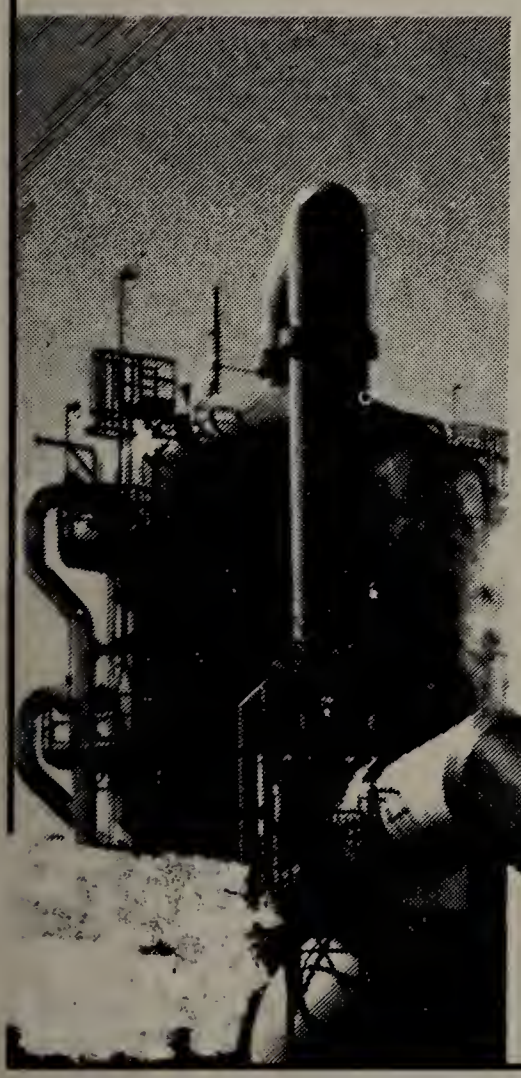
SOCIOECONOMIC ASSESSMENT TECHNICAL REPORT

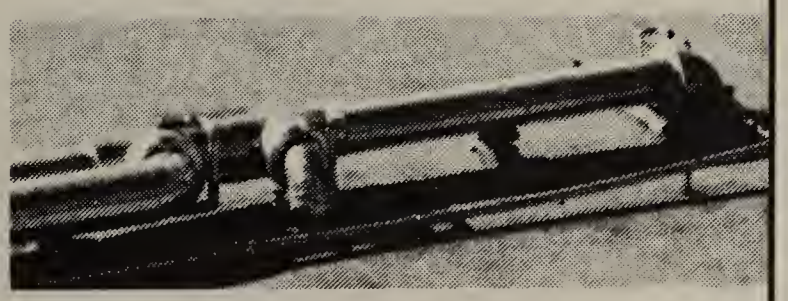
MAY 1983

Prepared by:
WESTERN RESEARCH
CORPORATION for

DEPARTMENT OF INTERIOR
BUREAU OF LAND MANAGEMENT
DEPARTMENT OF AGRICULTURE
FOREST SERVICE







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RILEY RIDGE

SOCIOECONOMIC ASSESSMENT

TECHNICAL REPORT

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April 1983

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TABLE OF CONTENTS

	Page
Chapter 1 Description of Proposed Action Alternatives	1-1
1.1 Introduction	1-1
1.2 Socioeconomic Information	1-1
Chapter 2	2-1
Chapter 3 Affected Environment	3-1
3.1 Introduction	3-1
3.1.1 Methodology for Employment and Population Projections	3-1
3.1.2 Delineation of the Affected Socioeconomic Environment	3-2
3.1.3 Socioeconomic Analysis for the Projected Baseline	
3.2 Current and Projected Socioeconomic Conditions in the Area of Site Influence for the Proposed Action	3-4
3.2.1 General Economic Conditions in Southwestern Wyoming	3-4
3.2.2 Housing	3-19
3.2.3 Fiscal Analysis and Public Services	3-35
3.2.4 Human Services	3-112
3.2.5 Social Conditions	3-117
3.3 Component Alternatives	3-124
3.4 Buckhorn Alternative	3-127
3.5 Shute Creek Alternative	3-127
3.6 Northern Alternative	3-127
Chapter 4 Environmental Consequences	4-1
4.1 Introduction	4-1
4.1.1 Socioeconomic Significance Criteria	4-1
4.2 Proposed Action	4-2
4.2.1 General Economic Conditions and Population Characteristics in Southwestern Wyoming Under the Proposed Action	4-2
4.2.2 Housing	4-22
4.2.3 Projected Effects on Fiscal Analysis and Public Services	4-28
4.2.4 Human Services	4-101
4.2.5 Description of Possible Social Effects in Sublette and Lincoln Counties	4-102
4.2.6 Cumulative Effects of Potential Development Interrelated With the Proposed Action	4-110
4.3 Component Alternatives	4-127
4.4 Buckhorn Alternative	4-127
4.5 Shute Creek Alternative	4-128
4.5.1 General Economic Conditions and Population Characteristics in Southwestern Wyoming Under the Shute Creek Alternative	4-128
4.5.2 Housing	4-142

TABLE OF CONTENTS
(continued)

		Page
4.5.3	Projected Effects on Fiscal Analysis and Public Services	4-155
4.5.4	Human Services	4-155
4.5.5	Description of Possible Social Conditions	4-155
4.6	Northern Alternative	4-156
4.6.1	General Economic Conditions and Population Characteristics in Southwestern Wyoming Under the Northern Alternative	4-156
4.6.2	Housing	4-171
4.6.3	Projected Effects on Fiscal Analysis and Public Services	4-178
4.6.4	Human Services	4-184
4.6.5	Description of Possible Social Conditions	4-184
4.7	No Action Alternative	4-184
4.8	Unavoidable Adverse Impacts	4-185
Appendix A		

LIST OF TABLES

		Page
Table 1.2-1	Average Annual Direct Employment for the Riley Ridge Project	1-2
Table 3.2.1-1	Projected Total Annual Employment Opportunities by Type and Broad Industrial Source for Lincoln County for the Baseline from 1970 to 2000	3-6
Table 3.2.1-2	Projected Total Annual Employment Opportunities by Type and Broad Industrial Source for Sublette County for the Baseline from 1970 to 2000	3-8
Table 3.2.1-3	Projected Total Annual Employment Opportunities by Type and Broad Industrial Source for Sweetwater County for the Baseline from 1970 to 2000	3-11
Table 3.2.1-4	Projected Total Annual Personal Earnings by Type and Broad Industrial Source in Constant 1980 Dollars for Lincoln County for the Baseline from 1970 to 2000	3-13
Table 3.2.1-5	Projected Total Annual Personal Earnings by Type and Broad Industrial Source in Constant 1980 Dollars for Sublette County for the Baseline from 1970 to 2000	3-15
Table 3.2.1-6	Projected Total Annual Personal Earnings by Type and Broad Industrial Source in Constant 1980 Dollars for Sweetwater County for the Baseline from 1970 to 2000	3-17
Table 3.2.1-7	Projected Total Annual Average Labor Force, Employment, Unemployment, and Unemployment Rates for Lincoln, Sublette, and Sweetwater Counties for the Baseline from 1970 to 2000	3-20
Table 3.2.1-8	Projected Baseline Population Within the Riley Ridge Study Area	3-22
Table 3.2.1-9	Projected Baseline Population Demographics Within the Riley Ridge Study Area	3-24

LIST OF TABLES
(continued)

		Page
Table 3.2.2-1	Historic Housing Supply and Baseline Housing Demand for Lincoln County	3-27
Table 3.2.2-2	Historic Housing Supply and Baseline Housing Demand for the Town of Kemmerer	3-28
Table 3.2.2-3	Historic Housing Supply and Baseline Housing Demand for the Town of Diamondville	3-29
Table 3.2.2-4	Historic Housing Supply and Baseline Housing Demand for the Town of LaBarge	3-31
Table 3.2.2-5	Historic Housing Supply and Baseline Housing Demand for Sublette County	3-32
Table 3.2.2-6	Historic Housing Supply and Baseline Housing Demand for the Town of Big Piney	3-33
Table 3.2.2-7	Historic Housing Supply and Baseline Housing Demand for the Town of Marbleton	3-34
Table 3.2.2-8	Historic Housing Supply and Baseline Housing Demand for the Town of Pinedale	3-36
Table 3.2.2-9	Historic Housing Supply and Baseline Housing Demand for the Town of Granger, Sweetwater County	3-37
Table 3.2.3-1	Projected Baseline Lincoln County Revenue	3-38
Table 3.2.3-2	Projected Baseline Lincoln County Expenditures	3-40
Table 3.2.3-3	Projected Baseline Town of Kemmerer Revenue	3-45
Table 3.2.3-4	Projected Baseline Town of Kemmerer Expenditures	3-47
Table 3.2.3-5	Projected Baseline Requirements for Kemmerer Municipal Water System	3-51
Table 3.2.3-6	Projected Baseline Requirements for Kemmerer Municipal Sewer System	3-52
Table 3.2.3-7	Projected Baseline Town of Diamondville Revenue	3-55

LIST OF TABLES
(continued)

		Page
Table 3.2.3-8	Projected Baseline Town of Diamondville Expenditures	3-57
Table 3.2.3-9	Projected Baseline Town of LaBarge Revenue	3-61
Table 3.2.3-10	Projected Baseline Town of LaBarge Expenditures	3-63
Table 3.2.3-11	Projected Baseline Requirements for LaBarge Water System	3-66
Table 3.2.3-12	Projected Baseline Lincoln School District #1 Revenue	3-69
Table 3.2.3-13	Projected Baseline Lincoln County School District #1 Expenditures	3-72
Table 3.2.3-14	Baseline Enrollment Projections for Lincoln County School District #1	3-74
Table 3.2.3-15	Baseline Classroom and Teacher Needs for Lincoln County School District #1	3-75
Table 3.2.3-16	Projected Baseline Sublette County Revenue	3-77
Table 3.2.3-17	Projected Baseline Sublette County Expenditures	3-79
Table 3.2.3-18	Projected Baseline Requirements for Sublette County Library	3-82
Table 3.2.3-19	Projected Baseline Requirements for Sublette County Recreation	3-84
Table 3.2.3-20	Projected Baseline Town of Big Piney Revenue	3-85
Table 3.2.3-21	Projected Baseline Town of Big Piney Expenditures	3-87
Table 3.2.3-22	Projected Baseline Town of Marbleton Revenue	3-90
Table 3.2.3-23	Projected Baseline Town of Marbleton Expenditures	3-92
Table 3.2.3-24	Projected Baseline Requirements for Town of Marbleton Water System	3-95
Table 3.2.3-25	Projected Baseline Sublette County School District #9 Revenue	3-97

LIST OF TABLES
(continued)

		Page
Table 3.2.3-26	Projected Baseline Sublette County School District #9 Expenditures	3-99
Table 3.2.3-27	Baseline Enrollment and Classroom/Teacher Projections for Sublette County School District #9	3-101
Table 3.2.3-28	Projected Baseline Town of Granger Revenue	3-103
Table 3.2.3-29	Projected Baseline Town of Granger Expenditures	3-105
Table 3.2.3-30	Projected Baseline Requirements for Town of Granger Municipal Water Department	3-108
Table 3.2.3-31	Projected Baseline Requirements for Town of Granger Sanitary Sewer System	3-110
Table 3.2.3-32	Projected Baseline Requirements for Town of Granger Solid Waste Disposal	3-111
Table 3.2.4-1	Projected Baseline Requirements for Lincoln County Health and Medical Services	3-113
Table 3.2.4-2	Projected Baseline Requirements for Sublette County Health and Medical Services	3-116
Table 3.2.5-1	Per Capita Personal Income for Sublette County, Lincoln County, and the State of Wyoming, 1976-1980	3-119
Table 3.2.5-2	Unemployment Rates for Sublette County, Lincoln County, and the State of Wyoming, 1976-1981	3-120
Table 3.2.5-3	Number of Divorces for Sublette County, Lincoln County, and the State of Wyoming, 1976-1980	3-122
Table 3.2.5-4	Infant Mortality for Sublette County, Lincoln County, and the State of Wyoming, 1976-1980	3-123
Table 3.2.5-5	Total Number of Instances Mental Health Services Were Provided in Sublette and Lincoln Counties	3-125
Table 3.2.5-6	Total Part I Reported Crimes and Crime Rates in Sublette County, Lincoln County, and the State of Wyoming, 1979-1981	3-126

LIST OF TABLES
(continued)

		Page
Table 4.2.1-1	Projected Annual Employment Opportunities in Lincoln County Associated With the Development of the Riley Ridge Project Under the Proposed Action for the Period 1982 to 2000	4-3
Table 4.2.1-2	Projected Annual Employment Opportunities in Sublette County Associated With the Development of the Riley Ridge Project Under the Proposed Action for the Period 1982 to 2000	4-5
Table 4.2.1-3	Projected Annual Employment Opportunities in Sweetwater County Associated With the Development of the Riley Ridge Project Under the Proposed Action for the Period 1982 to 2000	4-7
Table 4.2.1-4	Projected Impact on Annual Personal Earnings in Thousands of Constant 1980 Dollars for Lincoln, Sublette,and Sweetwater Counties Under the Proposed Action	4-10
Table 4.2.1-5	Projected Impact on Annual Average Labor Force, Employment, Unemployment, and Unemployment Rates for Lincoln, Sublette, and Sweetwater Counties for 1982 to 2000 Under the Proposed Action	4-12
Table 4.2.1-6	Projected Proposed Action Population Impact Within the Riley Ridge Study Area	4-15
Table 4.2.1-7	Projected Proposed Action Impact on Population Demographics	4-20
Table 4.2.2-1	Projected Impact of the Proposed Action on Housing Demand in Lincoln County	4-24
Table 4.2.2-2	Projected Impact of the Proposed Action on Housing Demand in the Town of Kemmerer	4-25
Table 4.2.2-3	Projected Impact of the Proposed Action on Housing Demand in the Town of Diamondville	4-26
Table 4.2.2-4	Projected Impact of the Proposed Action on Housing Demand in the Town of LaBarge	4-27
Table 4.2.2-5	Projected Impact of the Proposed Action on Housing Demand in Sublette County	4-29

LIST OF TABLES
(continued)

		Page
Table 4.2.2-6	Projected Impact of the Proposed Action on Housing Demand in the Town of Big Piney	4-30
Table 4.2.2-7	Projected Impact of the Proposed Action on Housing Demand in the Town of Marbleton	4-31
Table 4.2.2-8	Projected Impact of the Proposed Action on Housing Demand in the Town of Pinedale	4-32
Table 4.2.2-9	Projected Impact of the Proposed Action on Housing Demand in the Town of Granger, Sweetwater County	4-33
Table 4.2.3-1	Proposed Action Impact on Lincoln County Revenue	4-34
Table 4.2.3-2	Proposed Action Impact on Lincoln County Expenditures	4-36
Table 4.2.3-3	Proposed Action Impact on Town of Kemmerer Revenue	4-40
Table 4.2.3-4	Proposed Action Impact on Town of Kemmerer Expenditures	4-42
Table 4.2.3-5	Projected Proposed Action Impact on Requirements for Kemmerer Municipal Water System	4-45
Table 4.2.3-6	Projected Proposed Action Impact on Requirements for Kemmerer Municipal Sewer System	4-46
Table 4.2.3-7	Proposed Action Impact on Town of Diamondville Revenue	4-48
Table 4.2.3-8	Proposed Action Impact on Town of Diamondville Expenditures	4-50
Table 4.2.3-9	Proposed Action Impact on Town of LaBarge Revenue	4-53
Table 4.2.3-10	Proposed Action Impact on Town of LaBarge Expenditures	4-55
Table 4.2.3-11	Projected Proposed Action Impact on Requirements for LaBarge Municipal Water System	4-58
Table 4.2.3-12	Proposed Action Impact on Lincoln School District #1 Revenue	4-60

LIST OF TABLES
(continued)

		Page
Table 4.2.3-13	Proposed Action Impact on Lincoln School District #1 Expenditures	4-62
Table 4.2.3-14	Projected Impact on Enrollments for Lincoln County School District #1 Under the Riley Ridge Proposed Action	4-64
Table 4.2.3-15	Proposed Action Impact on Sublette County Revenue	4-66
Table 4.2.3-16	Proposed Action Impact on Sublette County Expenditures	4-68
Table 4.2.3-17	Projected Proposed Action Impact on Requirements for Sublette County Sheriff's Department	4-70
Table 4.2.3-18	Projected Proposed Action Impact on Requirements for Sublette County Road and Bridge Department	4-71
Table 4.2.3-19	Projected Proposed Action Impact on Requirements for Sublette County Recreation	4-73
Table 4.2.3-20	Proposed Action Impact on Town of Big Piney Revenue	4-74
Table 4.2.3-21	Proposed Action Impact on Town of Big Piney Expenditures	4-76
Table 4.2.3-22	Projected Proposed Action Impact on Requirements for Town of Big Piney Police Department	4-79
Table 4.2.3-23	Projected Proposed Action Impact on Requirements for Town of Big Piney Fire Department	4-80
Table 4.2.3-24	Projected Proposed Action Impact on Requirements for Town of Big Piney Parks and Recreation	4-81
Table 4.2.3-25	Proposed Action Impact on Town of Marbleton Revenue	4-82
Table 4.2.3-26	Proposed Action Impact on Town of Marbleton Expenditures	4-84
Table 4.2.3-27	Projected Proposed Action Impact on Requirements for Town of Marbleton Police Department	4-87

LIST OF TABLES
(continued)

		Page
Table 4.2.3-28	Projected Proposed Action Impact on Requirements for Town of Marbleton Water System	4-88
Table 4.2.3-29	Projected Proposed Action Impact on Requirements for Town of Marbleton Parks and Recreation	4-89
Table 4.2.3-30	Proposed Action Impact on Sublette School District #9 Revenue	4-90
Table 4.2.3-31	Proposed Action Impact on Sublette School District #9 Expenditures	4-92
Table 4.2.3-32	Projected Impact on Enrollments for Sublette County School District #9 Under the Riley Ridge Proposed Action	4-94
Table 4.2.3-33	Projected Impact on Net Classroom and Teacher Needs for Sublette County School District #9 Under the Riley Ridge Proposed Action	4-96
Table 4.2.3-34	Proposed Action Impact on Town of Granger Revenue	4-97
Table 4.2.3-35	Proposed Action Impact on Town of Granger Expenditures	4-99
Table 4.2.4-1	Projected Proposed Action Impact on Requirements for Sublette County Health and Medical Services	4-103
Table 4.2.6-1	Interrelated Basic Employment Activity 1983-2000	4-111
Table 4.2.6-2	Interrelated Basic Employment By Sector, 1983-2000	4-114
Table 4.2.6-3	Projected Cumulative Impacts on Annual Employment Opportunities in Lincoln County Under the Proposed Action for the Period 1982 to 2000	4-115
Table 4.2.6-4	Projected Cumulative Impacts on Annual Employment Opportunities in Sublette County Under the Proposed Action for the Period 1982 to 2000	4-117
Table 4.2.6-5	Projected Cumulative Impacts on Annual Employment Opportunities in Sweetwater County Under the Proposed Action for the Period 1982 to 2000	4-119

LIST OF TABLES
(continued)

		Page
Table 4.2.6-6	Projected Cumulative Impact on Annual Average Labor Force, Employment, Unemployment, and Unemployment Rates for Lincoln, Sublette, and Sweetwater Counties for 1982 to 2000 Under the Proposed Action	4-122
Table 4.2.6-7	Projected Cumulative Population Impact Under the Proposed Action	4-124
Table 4.5.1-1	Projected Annual Employment Opportunities in Lincoln County Associated With the Development of the Riley Ridge Project Under the Shute Creek Alternative for the Period 1982 to 2000	4-129
Table 4.5.1-2	Projected Annual Employment Opportunities in Sublette County Associated with the Development of the Riley Ridge Project Under the Shute Creek Alternative for the Period 1982 to 2000	4-131
Table 4.5.1-3	Projected Annual Employment Opportunities in Sweetwater County Associated with the Development of the Riley Ridge Project Under the Shute Creek Alternative for the Period 1982 to 2000	4-133
Table 4.5.1-4	Projected Annual Impact on Personal Earnings in Thousands of Constant 1980 Dollars for Lincoln, Sublette, and Sweetwater Counties Under the Shute Creek Alternative	4-136
Table 4.5.1-5	Projected Impact on Annual Average Labor Force, Employment, Unemployment, and Unemployment Rates for Lincoln, Sublette, and Sweetwater Counties for 1982 to 2000 Under the Shute Creek Alternative	4-137
Table 4.5.1-6	Shute Creek Alternative Population Impact Within the Riley Ridge Study Area	4-140
Table 4.5.1-7	Projected Shute Creek Alternative Impact on Population Demographics	4-143
Table 4.5.2-1	Projected Impact of the Shute Creek Alternative on Housing Demand for Lincoln County	4-146
Table 4.5.2-2	Projected Impact of the Shute Creek Alternative on Housing Demand for the Town of Kemmerer	4-147

LIST OF TABLES
(continued)

		Page
Table 4.5.2-3	Projected Impact of the Shute Creek Alternative on Housing Demand for the Town of Diamondville	4-148
Table 4.5.2-4	Projected Impact of the Shute Creek Alternative on Housing Demand for the Town of LaBarge	4-149
Table 4.5.2-5	Projected Impact of the Shute Creek Alternative on Housing Demand for Sublette County	4-150
Table 4.5.2-6	Projected Impact of the Shute Creek Alternative on Housing Demand for the Town of Big Piney	4-151
Table 4.5.2-7	Projected Impact of the Shute Creek Alternative on Housing Demand for the Town of Marbleton	4-152
Table 4.5.2-8	Projected Impact of the Shute Creek Alternative on Housing Demand in the Town of Pinedale	4-153
Table 4.5.2-9	Projected Impact of the Shute Creek Alternative on Housing Demand in the Town of Granger, Sweetwater County	4-154
Table 4.6.1-1	Projected Annual Employment Opportunities in Lincoln County Associated With the Development of the Riley Ridge Project Under the Northern Alternative for the Period 1982 to 2000	4-157
Table 4.6.1-2	Projected Annual Employment Opportunities in Sublette County Associated With the Development of the Riley Ridge Project Under the Northern Alternative for the Period 1982 to 2000	4-159
Table 4.6.1-3	Projected Annual Employment Opportunities in Sweetwater County Associated With the Development of the Riley Ridge Project Under the Northern Alternative for the Period 1982 to 2000	4-161
Table 4.6.1-4	Projected Annual Impact on Personal Earnings in Thousands of Constant 1980 Dollars for Lincoln, Sublette, and Sweetwater Counties Under the Northern Alternative	4-164
Table 4.6.1-5	Projected Impact on Annual Average Labor Force, Employment, Unemployment, and Unemployment Rates for Lincoln, Sublette, and Sweetwater Counties for 1982 to 2000 Under the Northern Alternative	4-166

LIST OF TABLES
(continued)

		Page
Table 4.6.1-6	Northern Alternative Population Impact Within the Riley Ridge Study Area	4-168
Table 4.6.1-7	Projected Northern Alternative Impact on Population Demographics	4-172
Table 4.6.2-1	Projected Impact of the Northern Alternative on Housing Demand in Lincoln County	4-174
Table 4.6.2-2	Projected Impact of the Northern Alternative on Housing Demand in the Town of Kemmerer	4-175
Table 4.6.2-3	Projected Impact of the Northern Alternative on Housing Demand in the Town of Diamondville	4-176
Table 4.6.2-4	Projected Impact of the Northern Alternative on Housing Demand in the Town of LaBarge	4-177
Table 4.6.2-5	Projected Impact of the Northern Alternative on Housing Demand in Sublette County	4-179
Table 4.6.2-6	Projected Impact of the Northern Alternative on Housing Demand in the Town of Big Piney	4-180
Table 4.6.2-7	Projected Impact of the Northern Alternative on Housing Demand in the Town of Marbleton	4-181
Table 4.6.2-8	Projected Impact of the Northern Alternative on Housing Demand in the Town of Pinedale	4-182
Table 4.6.2-9	Projected Impact of the Northern Alternative on Housing Demand in the Town of Granger, Sweetwater County	4-183

CHAPTER 1

DESCRIPTION OF PROPOSED ACTION ALTERNATIVES

1.1 INTRODUCTION

The Riley Ridge Project involves development of natural gas production and processing capacity in Lincoln County and Sublette County of western Wyoming. The total scope of the project includes well fields to produce natural gas, desulfurization plants to process the gas, and all of the ancillary facilities required to produce and process the gas and deliver it and the marketable by-products to distribution centers. A detailed description of the proposed plans is contained in a separate technical report.

1.2 SOCIOECONOMIC INFORMATION

The most important social and economic data for a project of this magnitude are the employment schedule to be associated with the project and the cost of development. In addition, any information relevant to employee housing is an important consideration. The total cost for development of the Riley Ridge Project including well fields, plants, pipelines, transportation, and ancillary facilities is expected to exceed $2.5 billion (in constant 1982 dollars).

The employment schedule for the project is shown in Table 1.2-1. That schedule indicates that well field development and operation will begin in 1983 (see Table 1.2-1, footnote 1) and continue through the life of the project. However, the most significant years for well field development will be from 1985 through 1989. Construction of facilities is also scheduled to begin in 1983 and will be largely completed by 1989. The peak construction period will occur in 1985 and 1986. The operational phase of the project will begin in 1985 and grow to a stable level in the early 1990s. There are obvious overlaps in the well field development, facility construction, and facility operation phases. These overlaps are particularly apparent in 1985 and 1986 when about 3,000 workers will be employed. During this period a diverse work force will be required including craftsmen for heavy construction, pipeline crews, operation and maintenance employees, and drilling crews.

It is anticipated that construction workers employed at the Craven Creek plant site in Lincoln County will, to some extent, be housed in a proposed construction camp that will be developed in conjunction with that facility. The camp will be developed as the actual housing demand dictates. The analysis in this report is based upon the assumptions of a single status community to serve an average annual project work force which has similar non-family and family household characteristics to those that existed in the county in 1980. Recognizing that the actual household characteristics may vary and that monthly peak housing requirements must be met, the camp has been nominally designed to house up to 100 percent of the peak work force associated with that facility.

TABLE 1.2-1

AVERAGE ANNUAL DIRECT EMPLOYMENT FOR THE RILEY RIDGE PROJECT[1]

	1983	1984	1985	1986	1987	1988	1989	1990	1995	2000
Well Field Development	39	249	449	578	495	502	514	345	320	320
Facility Construction[2]	28	742	2,460	2,157	759	671	845	471	0	0
Facility Operation and Maintenance[2]	0	0	66	321	439	471	559	638	774	774
Total	67	991	2,975	3,056	1,693	1,644	1,918	1,454	1,094	1,094

Source: Western Research Corporation; Laramie, Wyoming (1982).

[1]These figures include employment estimates from Mobil, Northwest Pipeline, American Quasar, Exxon, and Williams Exploration provided in July, 1982.

[2]These figures include employment estimates for plants, pipelines, transportation, and ancillary project facilities.

The employment schedule shown in Table 1.2-1 is appropriate for use with any of the development alternatives. Development of the Riley Ridge Project as proposed under the Buckhorn alternative would focus on well field development, facility construction, and operation and maintenance employment in Sublette County. Development of the project under the Shute Creek alternative would still require that well field development employment be predominantly in Sublette County. However, the majority of the employment opportunities associated with facility construction, operation, and maintenance would occur in Lincoln County. The Northern alternative for the Riley Ridge development is the same as the proposed action with Northwest Pipeline's Craven Creek Plant relocated to Sublette County. As with the other alternatives, the majority of the employment opportunities for the entire project would be in Sublette County.

CHAPTER 2

COMPARATIVE ANALYSIS OF PROPOSED ACTION AND ALTERNATIVES

2.1 SITING ALTERNATIVES

A comparison of significant socioeconomic impacts for the Proposed Action and the siting alternatives is presented in Table 2-1. The comparative analysis was developed using information included in Chapter 4. The table presents construction and operation impacts for each siting alternative based on a complete scenario for developing the well field, processing sour gas, and transporting sales gas and by-products to market.

The numbers presented in the tables represent the worst impacts that can be expected due to construction and operation for each alternative. For example, under population increase, only the largest change is presented. Communities would experience smaller population increases, many of which also exceed the impact significance criteria, at other times during the project life.

Differences among the alternatives are primarily a function of the location of the plant sites. The Proposed Action and Buckhorn Alternative would have the same impacts on Lincoln and Sublette Counties. The impacts of the Shute Creek Alternative would be concentrated in Lincoln County which is the strongest of the two counties in terms of fiscal condition. The impacts of the Northern Alternative, on the other hand, would be concentrated in Sublette County which is not as well prepared, from the standpoint of finances or services, to deal with the growth that would be associated with project development.

2.2 COMPONENT ALTERNATIVES

With the exception of employee housing, the component alternatives would cause no changes in the impacts identified for a given siting alternative. Provision of additional construction camps would reduce impacts to local area housing and vary depending on the siting alternative and the number and location of the camps. Because details on the camps have not been specified, these impacts cannot be quantified. It can be predicted, however, that the greatest reductions in housing demand would be in towns farthest from the plant sites and that the construction camps would not eliminate the significant housing impacts in Big Piney, Marbleton, and LaBarge.

TABLE 2-1

COMPARISON OF SOCIOECONOMIC IMPACTS FOR RILEY RIDGE PROJECT

SITING ALTERNATIVES

	Proposed Action	Buckhorn Alternative	Shute Creek Alternative	Northern Alternative
Socioeconomics				
Percentage Change in Population (%)				
Lincoln County				
Construction	37	37 (0)	42 (+5)	28 (-9)
Operation	8	8 (0)	15 (+7)	7 (-1)
Kemmerer				
Construction	58	58 (0)	72 (+4)	32 (-26)
Operation	9	9 (0)	24 (+15)	6 (-3)
Diamondville				
Construction	108	108 (0)	136 (+28)	55 (-53)
Operation	15	15 (0)	45 (+30)	10 (-5)
LaBarge				
Construction	345	345 (0)	265 (-80)	472 (+127)
Operation	142	142 (0)	106 (-36)	142 (0)
Sublette County				
Construction	66	66 (0)	49 (-17)	89 (+23)
Operation	36	36 (0)	20 (-16)	39 (+3)
Big Piney				
Construction	149	149 (0)	109 (-40)	201 (+52)
Operation	82	82 (0)	44 (-38)	89 (+7)
Marbleton				
Construction	136	136 (0)	99 (-37)	183 (+47)
Operation	75	75 (0)	40 (-35)	81 (+6)
Pinedale				
Construction	14	14 (0)	11 (-3)	18 (+4)
Operation	8	8 (0)	4 (-4)	8 (0)
Sweetwater County				
Construction	3	3 (0)	4 (+1)	2 (-1)
Operation	0	0 (0)	0 (0)	0 (0)
Granger				
Construction	61	61 (0)	76 (+15)	39 (-22)
Operation	3	3 (0)	5 (+2)	2 (-1)

TABLE 2-1 (CONTINUED)

	Proposed Action	Buckhorn Alternative	Shute Creek Alternative	Northern Alternative
Housing Shortfall (Units)				
Lincoln County				
Construction	2,270	2,270 (0)	2,529 (+259)	1,298 (-972)
Operation	447	447 (0)	801 (+354)	381 (-66)
Kemmerer				
Construction	885	885 (0)	1,098 (+213)	393 (-492)
Operation	141	141 (0)	418 (+277)	91 (-50)
Diamondville				
Construction	452	452 (0)	571 (+119)	207 (-245)
Operation	72	72 (0)	219 (-147)	43 (-29)
LaBarge				
Construction	468	468 (0)	363 (-105)	539 (+71)
Operation	226	226 (0)	170 (-56)	190 (-36)
Sublette County				
Construction	1,259	1,259 (0)	925 (-334)	2,208 (+949)
Operation	695	695 (0)	379 (-316)	761 (+66)
Big Piney				
Construction	351	351 (0)	255 (-96)	449 (+98)
Operation	197	197 (0)	107 (-90)	200 (+3)
Marbleton				
Construction	256	256 (0)	187 (-69)	413 (+157)
Operation	143	143 (0)	78 (-65)	185 (+42)
Pinedale				
Construction	62	62 (0)	49 (-13)	82 (+20)
Operation	33	33 (0)	20 (-13)	37 (+4)
Granger				
Construction	46	46 (0)	56 (+10)	28 (-18)
Operation	2	2 (0)	14 (+12)	2 (0)

TABLE 2-1 (CONTINUED)

	Proposed Action	Buckhorn Alternative	Shute Creek Alternative	Northern Alternative
Personal Income (Percent above Baseline)				
Lincoln County				
Construction	74	74 (0)	83 (+9)	56 (-18)
Operation	13	13 (0)	22 (+9)	11 (-2)
Sublette County				
Construction	152	152 (0)	113 (-39)	202 (+50)
Operation	72	72 (0)	42 (-30)	77 (+5)
Sweetwater County				
Construction	5	5 (0)	6 (+1)	4 (-1)
Operation	0	0 (0)	0 (0)	0 (0)

CHAPTER 3

AFFECTED ENVIRONMENT

3.1 INTRODUCTION

A regional approach has been utilized to determine the scope of the affected socioeconomic environment for the Riley Ridge Project. This approach combines considerations of the significant distances separating towns in western Wyoming with the influences of the availability of infrastructure capacity and the economic and demographic characteristics of the region. The techniques involved include use of a weighted gravity model to project distributions of project employment within the region and use of a regional modified economic base model to project direct and indirect employment and population growth associated with the project. The techniques utilized are described briefly below. A more detailed description is included in the methodological appendix to this document.

3.1.1 METHODOLOGY FOR EMPLOYMENT AND POPULATION PROJECTIONS

Projections of the initial distribution of prospective project employees into the general region are based upon the results of a weighted gravity employment distribution model. The form of this model assumes that the probability of an employee from a Riley Ridge Project development site residing in any given town is positively related to the town's size and inversely related to its distance away from the site. Since the probability of residing in any one town also depends upon the size and distance away from other towns, the model becomes: the probability of residing in a town is equal to the attraction of that town divided by the total attraction of towns within a specified commuting distance.

The important characteristic of this model is that it is a closed form of the gravity model since it applies to specified towns within a specified boundary. The regional highway network plays a large role in determining this boundary since, in Wyoming, the private automobile is the only readily available means of transportation. The number and quality of the roads leading from the development site to individual towns and the travel time between the two points are, therefore, the primary determinants of the gravity model boundary. The boundary established includes those locations close enough to the development site that employees living in the area may commute to work on a daily basis. The size of this group and the distance they are willing to travel were determined through monitoring studies conducted at other energy development sites. Almost 99 percent of the commuting Laramie River Station project construction employees resided within 110 miles of the site (Laramie River Station Monitoring Reports, 1975-1982). In 12 case studies reviewed by the Electrical Power Research Institute (EPRI 1982) construction worker commuting times ranged from 1.25 to 2.00 hours with the average being 1.42. Therefore, with the Wyoming experience in this group of projects, the Laramie River Station 2-hour boundary was assumed to be appropriate for this project. The counties included within this boundary are considered to define the

affected socioeconomic environment. The EPRI studies also showed a commuting range of from 0.5 to 1.00 hour or an average of 0.84 hour for operating employees. Based upon these data, it was assumed that project employees associated with the operation and maintenance of the facilities would reside within 55 miles or a 1 hour commuting distance from the site.

Once the initial distribution of project employees was determined through use of the gravity model, "induced" employment within the overall region being analyzed for potential growth was projected using the regional economic model. This model relates inter-county flows to increases in personal income generated by the new employees in the basic sector. Essentially, the approach distributes secondary employment based upon the hierarchical trade patterns within the region under study.

3.1.2 DELINEATION OF THE AFFECTED SOCIOECONOMIC ENVIRONMENT

The use of the weighted gravity model described above indicated that municipalities in four counties in western Wyoming could expect to be impacted by development of the Riley Ridge Project. The four counties - Lincoln, Sublette, Sweetwater, and Uinta - all have incorporated municipalities within 110 miles of the project sites. Furthermore, all except Uinta County include towns that are within the 55 mile commuting boundary assumed for operation and maintenance employees.

In addition to these four counties, Fremont County (east of the project sites) and Teton County (north of the project sites) were included in the regional analysis to assess the effects of secondary (induced) growth associated with project development. Fremont County is currently experiencing atypically high unemployment rates as a result of layoffs in the uranium industry and also includes the Wind River Indian Reservation within its boundaries. Teton County, on the other hand, has traditionally served as a recreational resource area for the inhabitants of western Wyoming and could be expected to grow as a result of the additional income generated in the regional economy by the development of the Riley Ridge Project.

The regional economic model (described in the methodological appendix to this document) was utilized to project both the direct and indirect employment and employment changes which could be expected in this six-county region as a result of the Riley Ridge Project. That is, separate employment and population projections were prepared for all entities in the region assuming the baseline, the proposed action, and all project development alternatives that would affect the socioeconomic analysis.

Analysis of the population and employment effects expected to accompany development of the Riley Ridge Project indicated that only a limited number of communities in the region could be expected to experience a ten percent or greater incremental change in population as a result of the proposed action or alternatives. Past experience in the region (HUD 1976) has generally led to the conclusion that ten percent growth represents a reasonable threshold factor to indicate that subsequent analysis is justified.

Within the six-county region initially specified, only three counties contained communities or school districts which met or exceeded the significance criterion of ten percent incremental change (Section 4.2.1). Uinta County and the incorporated municipalities therein are not expected to experience a ten percent incremental change in population during any year as a direct and/or indirect result of project development. Teton County and Fremont County were also eliminated from further consideration based on the same significance criterion. Neither county, nor the towns, school districts, or Wind River Indian Reservation are expected to experience significant employment or population changes as a result of development of the Riley Ridge Project.

The remaining region in the affected socioeconomic environment includes Lincoln, Sublette, and Sweetwater counties. Within this area, the ten percent threshold factor was utilized to determine the scope of subsequent analysis (Section 4.2.1). In Lincoln County; the county itself; the towns of Kemmerer, Diamondville, LaBarge, and Opal; and Lincoln County School District #1 meet or exceed the ten percent growth factor. In Sublette County; the county; the towns of Pinedale, Big Piney and Marbleton; and Sublette County School District #9 are expected to experience at least ten percent growth. Finally, in Sweetwater County, only the Town of Granger is expected to be significantly impacted.

This delineation of the affected socioeconomic environment is appropriate for consideration of the proposed action and all alternatives. Furthermore, this delineation seems appropriate for consideration of well field, plant site, and corridor development throughout the life of the Riley Ridge Project.

3.1.3 SOCIOECONOMIC ANALYSIS FOR THE PROJECTED BASELINE

The socioeconomic analysis included an assessment of the following parameters as appropriate for the entity involved:

- population, employment, and income;
- all public services and facilities;
- all human services and facilities;
- public finance, and
- housing.

An analysis of each of these factors (as appropriate) was completed for each county, municipality, and school district utilizing the methods described briefly below. A complete description of the methodology is included in an appendix to this document.

The population, employment, and income projection methodology was discussed briefly above (Section 3.1.1). The methodology to project needs for public and human services and associated facilities included use of state standards, locally determined standards, and existing levels of services for the entities involved. These standards were used in conjunction with the population projections to anticipate necessary changes in the provision of public and human services. Projections of revenue and expenditure levels for the various entities involved three major steps as well as input from other components of the overall socioeconomic analysis. The fiscal projection methodology

includes: analysis of historical budget data for each entity, determination of the appropriate techniques to be utilized in the projection of specific budget categories, and generation of revenue and expenditure projections for each entity. If incongruities appeared in the projections, the historical data and techniques were assessed again, and new projections were generated and reviewed. Projections of housing demand were prepared using a procedure which balances housing preferences with cost and available supply. Housing demand projections were prepared at the county level to incorporate changes in rural areas and for each of the affected municipalities.

Subsequent sections of this chapter describe socioeconomic conditions within the scope of the affected environment if the Riley Ridge Project is not developed. To provide an accurate assessment of the economic impacts of the Riley Ridge development it is necessary to project the future economy for the area of site influence as it would be without the proposed development. The baseline is described as the current economic activity without planned expansions and new development or the Riley Ridge Project. However, the baseline is not projected as a stagnant economy. Rather it is pictured as one in which growth will occur as a result of net natural increase in the population and economic activity which can not specifically be identified as planned expansions or new development yet is apparent in the analysis of the economy from 1969 through 1982. The baseline economic activity was developed from the 1969 through 1980 Bureau of Economic Analysis employment history and those basic employment projects which were underway in 1981 and 1982.

3.2 CURRENT AND PROJECTED SOCIOECONOMIC CONDITIONS IN THE AREA OF SITE INFLUENCE FOR THE PROPOSED ACTION

3.2.1 GENERAL ECONOMIC CONDITIONS IN SOUTHWESTERN WYOMING

Introduction

Lincoln, Sublette, and Sweetwater counties encompass an area of approximately 19,513 square miles and account for just over 20 percent of the total land area of Wyoming (DAFC 1981). Nearly 71 percent of the region's total land area is owned by the federal government, compared to approximately 47 percent for the entire state. The total amount of publicly (federal, state, and local government) owned land among the three counties accounts for approximately 76 percent of the total land area of the region.

Most early activity in the area was tied either directly or indirectly to fur trading, and then to the opening of the emigrant trail. In the 1860s the Union Pacific constructed its railroad line across southern Wyoming and this resulted in the basis for the early economy of the region, providing inexpensive transportation for goods produced from the land to ready eastern markets (DOE 1980). The livestock industry was the first to use the railroads and formed the primary foundation of the area's economy. The railroad also provided transportation for products of the mining industry and for tourists visiting the many scenic areas found in southern and western Wyoming.

The agricultural, mining, and tourist industries continue to be the dominant economic activities in the region. The mountainous terrain and sparse

precipitation have been instrumental in checking population growth and limiting agricultural uses (only about 10 percent of the land area of the region is suitable for cropping), and isolation from major market areas has kept manufacturing interests at a minimum. Although early discoveries indicated tremendous oil reserves throughout Wyoming, the lack of close markets and higher transportation costs to the population centers of the East and West diminished Wyoming's ability to compete with mid-continent, eastern, and California oil (Geological Survey of Wyoming 1982). It wasn't until the 1940s, with the demand brought on by World War II, that oil development began to expand in Wyoming. However, it wasn't until 1975, following the discovery of the Pineview Field in Utah, that oil and gas exploration and production activity began its dramatic increase in the area of this region known as the Overthrust Belt (Geological Survey of Wyoming 1982a). Since that time a series of spectacular discoveries have occurred in this area of Wyoming and the region has become instrumental to the economy of the state.

Projected Baseline Economy

The baseline as defined provides a base for comparison of projections of the net impacts from the Riley Ridge Project alternatives and for the cumulative effects of the Riley Ridge Project with other potential development in the local economies. The annual summaries of baseline projected employment opportunities by major sector are presented in the following discussion of Lincoln, Sublette, and Sweetwater counties.

Employment opportunities in Lincoln County (Table 3.2.1-1) under the baseline are expected to follow very much the same general trend that was observed during the 1970s, the primary difference being the rates of change. The mining sector is expected to continue to lead the county in terms of job growth, increasing by approximately 32 percent in total jobs from 1982 to 2000. This job growth is much less than the 385 percent increase from 1970 to 1980. The majority of the mining growth is expected to result primarily from continued development by the oil and gas industries. The mining sector, increasing in available jobs much faster than total employment opportunities, should continue to dominate the economy in available jobs, increasing from nearly 22 percent of all jobs in 1980 to over 24 percent of jobs by 2000.

Agricultural employment opportunities will continue to decline as a component of total available jobs, decreasing from approximately 13 percent in 1980 to just over 10 percent of all possible jobs in 2000. The remaining sectors, which include the tourism-related employment opportunities, are expected to continue in their general trend from 1980 to 2000, with the relative level in job opportunities in 2000 being very close to 1980 levels.

Projected baseline employment opportunities in mining in Sublette County continue to increase during the early 1980s, peaking in 1985 (Table 3.2.1-2). This is about the time that oil and gas exploration and development is expected to maximize in Sublette County. After 1985, mining activity is then expected to decline through 2000, offering less employment opportunities than in 1980 and thus, resulting in a total decrease of approximately 66 percent from the 1982 level. Agricultural employment opportunities are expected to continue to dominate the economy in this county, accounting for approximately

TABLE 3.2.1-1

PROJECTED TOTAL ANNUAL EMPLOYMENT OPPORTUNITIES BY TYPE AND BROAD INDUSTRIAL SOURCE FOR LINCOLN COUNTY FOR THE BASELINE FROM 1970 TO 2000

Category	1970	1980	1982	1983	1984	1985	1986
Agriculture	820	809	817	821	825	829	834
Mining	279	1,353	1,473	1,497	1,515	1,540	1,566
Construction	638	539	873	579	584	591	598
Manufacturing	289	444	676	679	684	690	692
Transportation, Communications, and Public Utilities	303	482	545	537	541	546	551
Retail and Wholesale Trade	594	838	950	915	923	933	942
Finance, Insurance, and Real Estate	72	163	205	192	195	199	202
Services	451	577	642	623	627	633	638
Government	749	925	956	972	988	1,005	1,022
Miscellaneous	19	37	45	43	43	44	45
Total Employment	4,214	6,167	7,183	6,857	6,925	7,010	7,090

TABLE 3.2.1-1 (CONTINUED)

Category	1987	1988	1989	1990	1995	2000
Agriculture	838	842	846	850	872	894
Mining	1,593	1,621	1,651	1,681	1,741	1,951
Construction	604	611	618	625	653	697
Manufacturing	693	695	696	698	702	713
Transportation, Communications, and Public Utilities	556	561	567	573	596	634
Retail and Wholesale Trade	952	962	972	983	1,014	1,084
Finance, Insurance, and Real Estate	206	209	213	217	229	256
Services	644	649	656	662	680	721
Government	1,039	1,056	1,074	1,092	1,186	1,288
Miscellaneous	46	46	47	48	50	55
Total Employment	7,170	7,253	7,341	7,428	7,724	8,294

Source: Western Research Corporation; Laramie, Wyoming, 1982.

Note: Columns may not total due to rounding.

TABLE 3.2.1-2

PROJECTED TOTAL ANNUAL EMPLOYMENT OPPORTUNITIES BY TYPE AND BROAD INDUSTRIAL SOURCE FOR SUBLETTE COUNTY FOR THE BASELINE FROM 1970 TO 2000

Category	1970	1980	1982	1983	1984	1985	1986
Agriculture	476	467	472	474	476	479	481
Mining	127	274	340	332	297	298	299
Construction	165	336	352	358	362	370	376
Manufacturing	46	41	41	41	41	41	41
Transportation, Communications, and Public Utilities	184	137	139	139	138	139	140
Retail and Wholesale Trade	286	361	368	369	369	371	373
Finance, Insurance, and Real Estate	40	49	51	51	50	51	51
Services	244	285	289	290	290	292	294
Government	371	423	429	432	435	438	442
Miscellaneous	17	35	37	37	38	38	39
Total Employment	1,956	2,408	2,518	2,523	2,497	2,517	2,535

TABLE 3.2.1-2 (CONTINUED)

Category	1987	1988	1989	1990	1995	2000
Agriculture	484	486	488	491	503	516
Mining	299	264	208	227	111	115
Construction	384	389	394	402	439	486
Manufacturing	41	41	41	41	41	41
Transportation, Communications, and Public Utilities	140	139	138	139	138	139
Retail and Wholesale Trade	375	375	374	377	381	395
Finance, Insurance, and Real Estate	51	50	49	50	48	50
Services	295	295	295	298	303	313
Government	445	448	451	454	471	488
Miscellaneous	39	40	39	41	43	46
Total Employment	2,553	2,528	2,478	2,520	2,478	2,589

Source: Western Research Corporation; Laramie, Wyoming, 1982.

Note: Columns may not total due to rounding.

20 percent of all available jobs in 2000. Recreational services employment are expected to continue to grow as the pressure on Yellowstone and Teton National Parks becomes greater and the surrounding counties continue to grow (Sublette County Planning and Zoning Commission 1978). Concern has been expressed in Sublette County, however, regarding the present and planned levels of facilities for meeting these needs, and for the needs for further control of certain aspects of tourism in the Wind River Mountains.

The growth in baseline employment opportunities in Sweetwater County (Table 3.2.1-3) is expected to decrease tremendously from the rates experienced during the 1970s. Very little baseline growth is anticipated in the mining sector, where total jobs are expected to increase by about 2 percent from 1982 to 2000. As a result, the mining sector will decrease somewhat in relative size and account for just over 22 percent of all employment opportunities by 2000. Very few changes are expected in the relative size of the remaining sectors from the levels observed in 1980.

Total annual personal earnings (in constant 1980 dollars) were projected for Lincoln, Sublette, and Sweetwater counties under the baseline for the period 1982 to 2000 (Tables 3.2.1-4 through 3.2.1-6). Baseline total personal earnings (average annual wages multiplied by employment, excluding any accounting of fringe benefits and other adjustments made for total income determinations) are expected to increase from approximately $107.2 million in 1982 to approximately $126.7 million in 2000 in Lincoln County. This results in an 18 percent growth in constant dollar earnings over the projected period. This larger expected rate of increase in total earnings is slightly higher than the 15 percent projected growth in total employment opportunities in Lincoln County occurs as a result of anticipated but unidentified expansion in energy development activities and the proportionately high level of wages paid for this type of labor.

Total constant dollar earnings in Sublette County are projected to decrease by approximately 6 percent from 1982 to 2000 under the no action alternative. This again reflects the slow-to-negative rates of growth expected to occur in the higher paying industries for Sublette County under the no action alternative.

Total baseline personal earnings (in 1980 dollars) are projected to increase by about 29 percent in Sweetwater County from 1982 to 2000. This growth is less than the 42 percent expected increase in total employment opportunities, but again reflects some of the baseline assumptions as they effect the higher paying sectors of the local economy. The three largest wage earning sectors (mining, construction, and transportation, communications, and public utilities) in the local baseline economy are expected to increase in total jobs by only 4 percent from 1982 to 2000 since other anticipated growth in these sectors is identified and discussed in the cumulative effects section of this report. Total earnings in Sweetwater County are estimated at approximately $471.7 million for 1982, and are expected to increase to approximately $609.9 million by 2000.

In summary, the economies of these three counties should continue to demonstrate a reliance upon the agricultural, mining, and tourist industries

TABLE 3.2.1-3

PROJECTED TOTAL ANNUAL EMPLOYMENT OPPORTUNITIES BY TYPE AND BROAD INDUSTRIAL SOURCE FOR SWEETWATER COUNTY FOR THE BASELINE FROM 1970 TO 2000

Category	1970	1980	1982	1983	1984	1985	1986
Agriculture	347	235	237	239	240	241	242
Mining	1,612	7,142	7,464	7,453	7,405	7,411	7,421
Construction	515	3,141	2,075	1,770	1,773	1,786	1,801
Manufacturing	216	457	665	661	664	668	673
Transportation, Communications, and Public Utilities	863	1,933	2,349	2,338	2,344	2,356	2,369
Retail and Wholesale Trade	1,533	4,224	4,315	4,313	4,361	4,426	4,494
Finance, Insurance, and Real Estate	188	445	450	446	448	452	457
Services	1,525	2,847	2,876	2,852	2,868	2,895	2,923
Government	1,538	3,067	3,476	3,701	3,940	4,195	4,466
Miscellaneous	17	54	54	54	54	55	55
Total Employment	8,354	23,545	23,961	23,826	24,096	24,484	24,901

TABLE 3.2.1-3 (CONTINUED)

Category	1987	1988	1989	1990	1995	2000
Agriculture	243	245	246	247	253	260
Mining	7,429	7,439	7,449	7,459	7,520	7,582
Construction	1,811	1,827	1,842	1,859	1,967	2,109
Manufacturing	678	683	689	695	731	779
Transportation, Communications, and Public Utilities	2,382	2,396	2,411	2,427	2,523	2,652
Retail and Wholesale Trade	4,564	4,640	4,717	4,799	5,271	5,864
Finance, Insurance, and Real Estate	462	467	473	479	515	564
Services	2,953	2,986	3,020	3,056	3,271	3,556
Government	4,755	5,062	5,389	5,737	7,847	10,733
Miscellaneous	56	57	57	58	63	69
Total Employment	25,332	25,801	26,293	26,816	29,961	34,169

Source: Western Research Corporation; Laramie, Wyoming, 1982.

Note: Columns may not total due to rounding.

TABLE 3.2.1-4

PROJECTED TOTAL ANNUAL PERSONAL EARNINGS BY TYPE AND BROAD INDUSTRIAL SOURCE IN CONSTANT 1980 DOLLARS FOR LINCOLN COUNTY FOR THE BASELINE FROM 1970 TO 2000
(thousands of dollars)

Category	1970	1980	1982	1983	1984	1985	1986
Agriculture	3,774	2,501	2,525	2,538	2,550	2,562	2,578
Mining	2,588	36,304	39,524	40,168	40,650	41,321	42,019
Construction	6,228	9,017	14,615	9,690	9,776	9,895	10,011
Manufacturing	1,552	5,970	9,083	9,122	9,191	9,278	9,297
Transportation, Communications, and Public Utilities	2,803	11,947	13,514	13,297	13,406	13,532	13,656
Retail and Wholesale Trade	3,219	7,289	8,258	7,961	8,028	8,113	8,195
Finance, Insurance, and Real Estate	591	2,462	3,103	2,906	2,950	3,007	3,061
Services	1,345	3,486	3,878	3,758	3,785	3,819	3,852
Government	4,128	11,141	11,514	11,707	11,899	12,104	12,309
Miscellaneous	105	995	1,214	1,147	1,162	1,181	1,200
Total Personal Earnings	26,333	91,111	107,228	102,293	103,399	104,813	106,177

TABLE 3.2.1-4 (CONTINUED)

Category	1987	1988	1989	1990	1995	2000
Agriculture	2,590	2,603	2,615	2,627	2,695	2,763
Mining	42,743	43,495	44,300	45,105	46,715	52,349
Construction	10,111	10,230	10,353	10,461	10,930	11,671
Manufacturing	9,316	9,336	9,357	9,378	9,440	9,581
Transportation, Communications, and Public Utilities	13,780	13,907	14,039	14,196	14,764	15,711
Retail and Wholesale Trade	8,277	8,364	8,455	8,547	8,820	9,431
Finance, Insurance, and Real Estate	3,115	3,172	3,233	3,294	3,474	3,878
Services	3,886	3,921	3,958	3,995	4,105	4,352
Government	12,514	12,718	12,935	13,152	14,284	15,513
Miscellaneous	1,219	1,238	1,259	1,280	1,341	1,480
Total Personal Earnings	107,551	108,983	110,503	112,034	116,569	126,729

Source: Western Research Corporation; Laramie, Wyoming, 1982.

Note: Columns may not total due to rounding.

TABLE 3.2.1-5

PROJECTED TOTAL ANNUAL PERSONAL EARNINGS BY TYPE AND BROAD INDUSTRIAL SOURCE IN CONSTANT 1980 DOLLARS FOR SUBLETTE COUNTY FOR THE BASELINE FROM 1970 TO 2000
(thousands of dollars)

Category	1970	1980	1982	1983	1984	1985	1986
Agriculture	2,906	4,812	4,863	4,884	4,905	4,936	4,956
Mining	1,303	6,884	8,542	8,341	7,462	7,487	7,512
Construction	1,350	5,102	5,346	5,436	5,505	5,620	5,717
Manufacturing	243	383	383	383	383	383	383
Transportation, Communications, and Public Utilities	1,620	3,211	3,258	3,258	3,241	3,270	3,275
Retail and Wholesale Trade	1,281	3,581	3,658	3,667	3,660	3,686	3,701
Finance, Insurance, and Real Estate	242	700	725	725	716	719	722
Services	730	2,456	2,488	2,496	2,500	2,510	2,529
Government	2,010	5,283	5,358	5,395	5,433	5,470	5,520
Miscellaneous	82	178	188	188	191	192	197
Total Personal Earnings	11,767	32,591	34,809	34,773	33,996	34,273	34,514

TABLE 3.2.1-5 (CONTINUED)

Category	1987	1988	1989	1990	1995	2000
Agriculture	4,987	5,008	5,028	5,059	5,183	5,317
Mining	7,512	6,633	5,226	5,703	2,789	2,889
Construction	5,830	5,915	5,985	6,112	6,666	7,390
Manufacturing	383	383	383	383	383	383
Transportation, Communications, and Public Utilities	3,280	3,264	3,235	3,252	3,233	3,264
Retail and Wholesale Trade	3,726	3,720	3,711	3,747	3,785	3,925
Finance, Insurance, and Real Estate	725	716	701	709	687	704
Services	2,539	2,543	2,543	2,565	2,612	2,691
Government	5,558	5,595	5,633	5,670	5,882	6,095
Miscellaneous	198	201	199	205	217	235
Total Personal Earnings	34,737	33,978	32,644	33,406	31,437	32,892

Source: Western Research Corporation; Laramie, Wyoming, 1982.

Note: Columns may not total due to rounding.

TABLE 3.2.1-6

PROJECTED TOTAL ANNUAL PERSONAL EARNINGS BY TYPE AND BROAD INDUSTRIAL SOURCE IN CONSTANT 1980 DOLLARS FOR SWEETWATER COUNTY FOR THE BASELINE FROM 1970 TO 2000
(thousands of dollars)

Category	1970	1980	1982	1983	1984	1985	1986
Agriculture	1,644	1,068	1,077	1,086	1,091	1,095	1,100
Mining	16,190	202,919	212,067	211,755	210,391	210,561	210,845
Construction	3,701	72,670	48,000	40,941	41,028	41,320	41,661
Manufacturing	2,080	9,035	13,155	13,072	13,118	13,205	13,300
Transportation, Communications, and Public Utilities	7,789	46,102	56,021	55,752	55,902	56,183	56,489
Retail and Wholesale Trade	7,147	48,161	49,193	49,172	49,717	50,460	51,238
Finance, Insurance, and Real Estate	1,124	5,979	6,039	5,982	6,014	6,073	6,138
Services	6,144	39,587	39,986	39,661	39,878	40,245	40,644
Government	8,937	40,506	45,908	48,879	52,036	55,403	58,982
Miscellaneous	36	207	209	207	208	211	213
Total Personal Earnings	54,792	466,234	471,654	466,507	469,382	474,758	480,611

TABLE 3.2.1-6 (CONTINUED)

Category	1987	1988	1989	1990	1995	2000
Agriculture	1,104	1,114	1,118	1,123	1,150	1,182
Mining	211,073	211,357	211,641	211,925	213,658	215,420
Construction	41,893	42,273	42,623	43,019	45,502	48,803
Manufacturing	13,396	13,503	13,614	13,732	14,444	15,392
Transportation, Communications, and Public Utilities	56,802	57,145	57,504	57,885	60,185	63,251
Retail and Wholesale Trade	52,035	52,896	53,779	54,715	60,095	66,860
Finance, Insurance, and Real Estate	6,204	6,276	6,352	6,433	6,919	7,568
Services	41,065	41,511	41,990	42,484	45,476	49,444
Government	62,799	66,854	71,173	75,769	103,635	141,751
Miscellaneous	216	219	221	225	243	268
Total Personal Earnings	486,588	493,146	500,015	507,309	551,309	609,939

Source: Western Research Corporation; Laramie, Wyoming, 1982.

Note: Columns may not total due to rounding.

for their survival. However, the overall baseline growth in total employment opportunities during the 1980s will be much less than those observed during the 1970s. The mining sector should continue to be a dominant force in the economies of Lincoln and Sweetwater counties, as realized in the much slower growth in estimated earnings, while agricultural employment opportunities will continue to be an important factor in Sublette County and thus will have a more positive influence on total personal earnings.

Projected Labor Force

Presented in Table 3.2.1-7 are projected mean annual average labor force, employment, unemployment, and unemployment rates for Lincoln, Sublette, and Sweetwater counties from 1982 to 2000 for the baseline. Expected baseline growth in the total labor force in Lincoln County is more steady than those rates experienced in the late 1970s as a result of including potential continued oil and gas exploration and development activities as interrelated projects rather than in the baseline. Total growth from 1982 to 2000 is estimated at approximately 14 percent. Very little change is expected in the level of the baseline total labor force in Sublette County by 2000 from that of 1982. An increase in the total labor force of approximately 40 percent is projected for Sweetwater County between 1982 and 2000. Without the proposed Riley Ridge Project the projected baseline unemployment rates for all three counties remain above those levels experienced during the late 1970s, with the higher rates occurring in the first part of the 1980s. This results from the baseline assumption of limited oil and gas exploration on development in Lincoln and Sublette counties and completion of the Tenneco trona mine development in Sweetwater County.

Projected Population

Baseline population projections for Lincoln, Sublette, and Sweetwater counties and towns from 1982 to 2000 are presented in Table 3.2.1-8. The rate of baseline growth in total population during the 1980's is expected to be much lower for all three counties from those levels experienced during the 1970s. County populations are expected to increase by approximately 20 percent and 40 percent in Lincoln and Sweetwater counties, respectively, from 1982 to 2000, as compared to the 41 percent and 127 percent increases, respectively, experienced during the 1970s. Only a 2 percent change in total population is expected in Sublette County from 1982 to 2000. No significant changes in the population distributions to the various cities and towns within the three counties are expected to occur from those distributions observed in 1980. Furthermore, the age and sex distributions currently exhibited by the population in each of the three counties is expected to remain essentially unchanged through the 1980s (Table 3.2.1-9).

3.2.2 HOUSING

This section discusses the housing stock identified during the 1980 Census, an estimate of the existing stock in 1982, and the projected baseline demand without the Riley Ridge Project. The discussion focuses on those towns and counties expected to incur significant housing demand as a result of the project. These include Lincoln County, the Town of Kemmerer, the Town of

TABLE 3.2.1-7

PROJECTED TOTAL ANNUAL AVERAGE LABOR FORCE, EMPLOYMENT, UNEMPLOYMENT, AND UNEMPLOYMENT RATES FOR LINCOLN, SUBLETTE, AND SWEETWATER COUNTIES FOR THE BASELINE FROM 1970 TO 2000

Category	1970[1]	1980[1]	1982[2]	1983[3]	1984	1985	1986
Total Labor Force							
Lincoln	4,240	5,020	5,991	5,658	5,717	5,787	5,855
Sublette	1,770	2,145	2,270	2,271	2,243	2,260	2,276
Sweetwater	7,800	21,018	21,790	21,707	21,943	22,292	22,646
Total Employed							
Lincoln	3,940	4,695	5,434	5,291	5,345	5,412	5,475
Sublette	1,750	2,080	2,193	2,196	2,169	2,186	2,201
Sweetwater	7,400	20,280	20,837	20,754	20,983	21,316	21,675
Total Unemployed							
Lincoln	300	325	557	367	372	375	380
Sublette	20	65	77	75	74	74	75
Sweetwater	400	739	953	953	960	976	971
Annual Average Unemployment Rate - %							
Lincoln	7.1	6.5	9.3	6.5	6.5	6.5	6.5
Sublette	1.1	3.0	3.4	3.3	3.3	3.3	3.3
Sweetwater	5.1	3.5	4.4	4.4	4.4	4.4	4.3

TABLE 3.2.1-7 (CONTINUED)

Category	1987	1988	1989	1990	1995	2000
Total Labor Force						
Lincoln	5,922	5,991	6,064	6,135	6,382	6,856
Sublette	2,292	2,264	2,212	2,241	2,197	2,292
Sweetwater	23,006	23,372	23,743	24,121	26,713	30,448
Total Employed						
Lincoln	5,537	5,602	5,671	5,739	5,967	6,412
Sublette	2,216	2,189	2,139	2,177	2,124	2,216
Sweetwater	22,048	22,452	22,877	23,328	26,044	29,683
Total Unemployed						
Lincoln	385	389	393	396	415	444
Sublette	76	75	73	64	73	76
Sweetwater	958	920	866	793	669	765
Annual Average Unemployment Rate - %						
Lincoln	6.5	6.5	6.5	6.5	6.5	6.5
Sublette	3.3	3.3	3.3	2.9	3.3	3.3
Sweetwater	4.2	3.9	3.6	3.3	2.5	2.5

Source: Western Research Corporation, Laramie, Wyoming, 1982.

[1]Wyoming Employment Security Commission.
[2]Western Research Corporation estimates.
[3]Western Research Corporation projections.

TABLE 3.2.1-8

PROJECTED BASELINE POPULATION WITHIN THE RILEY RIDGE STUDY AREA

LOCATION	1970	1980	1982	1983	1984	1985	1986
LINCOLN COUNTY	8640	12177	13973	13850	13995	14168	14333
AFTON TOWN	1290	1481	1697	1682	1700	1721	1741
THAYNE TOWN	195	256	296	293	296	300	303
DIAMONDVILLE TOWN	485	1000	1148	1137	1149	1164	1177
KEMMERER TOWN	2292	3273	3759	3726	3765	3811	3856
LA BARGE TOWN	NA	302	345	342	346	350	354
COKEVILLE TOWN	440	515	589	583	589	597	604
RURAL	3938	5350	6140	6086	6149	6226	6298
FRONTIER AREA	NA	146	168	166	168	170	172
OPAL AREA	NA	99	114	113	114	116	117
SUBLETTE COUNTY	3755	4548	4771	4832	4772	4809	4844
BIG PINEY TOWN	570	530	556	563	556	561	565
MARBLETON TOWN	223	537	562	569	562	567	571
PINEDALE TOWN	948	1066	1118	1132	1118	1127	1135
RURAL	2014	2415	2535	2567	2535	2555	2573
CALPET AREA	NA	25	26	27	26	26	27
DANIEL AREA	NA	150	157	159	157	158	160
SWEETWATER COUNTY	18391	41723	43581	43415	43885	44583	45292
GRANGER TOWN	137	177	185	184	186	189	192
GREEN RIVER CITY	4196	12807	13369	13318	13462	13676	13894
ROCK SPRINGS CITY	11657	19453	20314	20237	20456	20781	21111
SOUTH SUPERIOR TOWN	197	586	607	605	612	621	631
WAMSUTTER TOWN	139	681	722	720	727	739	751
RURAL	2065	8014	8384	8352	8442	8577	8713

TABLE 3.2.1-8

PROJECTED BASELINE POPULATION WITHIN THE RILEY RIDGE STUDY AREA (CONTINUED)

LOCATION	1987	1988	1989	1990	1995	2000
LINCOLN COUNTY	14497	14666	14845	15025	15622	16784
AFTON TOWN	1761	1781	1803	1825	1898	2039
THAYNE TOWN	307	310	314	318	331	355
DIAMONDVILLE TOWN	1191	1204	1219	1234	1283	1378
KEMMERER TOWN	3900	3945	3993	4042	4202	4515
LA BARGE TOWN	358	363	367	371	386	415
COKEVILLE TOWN	611	618	625	633	658	707
RURAL	6370	6444	6523	6602	6864	7375
FRONTIER AREA	174	176	178	180	187	201
OPAL AREA	118	120	121	123	127	137
SUBLETTE COUNTY	4877	4818	4708	4768	4674	4876
BIG PINEY TOWN	569	562	549	556	545	569
MARBLETON TOWN	575	568	555	562	551	575
PINEDALE TOWN	1143	1129	1103	1117	1095	1143
RURAL	2591	2559	2501	2533	2483	2590
CALPET AREA	27	27	26	26	26	27
DANIEL AREA	161	159	155	157	154	161
SWEETWATER COUNTY	46012	46744	47487	48242	53426	60896
GRANGER TOWN	195	198	201	204	226	258
GREEN RIVER CITY	14115	14339	14567	14799	16389	18680
ROCK SPRINGS CITY	21447	21788	22135	22487	24903	28385
SOUTH SUPERIOR TOWN	641	652	662	672	745	849
WAMSUTTER TOWN	763	775	787	800	886	1009
RURAL	8852	8992	9135	9281	10278	11715

SOURCE: WESTERN RESEARCH CORPORATION; LARAMIE, WYOMING (1982).

TABLE 3.2.1-9

PROJECTED BASELINE POPULATION DEMOGRAPHICS WITHIN THE RILEY RIDGE STUDY AREA

CATEGORY	1970	1980	1982	1983	1984	1985	1986
LINCOLN COUNTY							
0 TO 4 YEARS	806	1595	1831	1814	1833	1856	1878
5 TO 19 YEARS	2912	3423	3926	3892	3933	3981	4028
20 TO 34 YEARS	1330	3002	3451	3421	3457	3499	3540
35 TO 54 YEARS	1901	2183	2501	2479	2505	2536	2566
55 YEARS AND OLDER	1691	1974	2264	2244	2267	2295	2322
TOTAL POPULATION	8640	12177	13973	13850	13995	14168	14333
SUBLETTE COUNTY							
0 TO 4 YEARS	328	408	429	435	429	433	436
5 TO 19 YEARS	1211	1211	1269	1285	1269	1279	1289
20 TO 34 YEARS	739	1152	1207	1222	1207	1217	1226
35 TO 54 YEARS	915	1014	1064	1078	1064	1072	1080
55 YEARS AND OLDER	562	763	802	812	802	808	814
TOTAL POPULATION	3755	4548	4771	4832	4772	4809	4844

(CONTINUED ON NEXT PAGE)

TABLE 3.2.1-9

PROJECTED BASELINE POPULATION DEMOGRAPHICS WITHIN THE RILEY RIDGE STUDY AREA (CONTINUED)

CATEGORY	1987	1988	1989	1990	1995	2000
LINCOLN COUNTY						
0 TO 4 YEARS	1899	1921	1945	1968	2046	2199
5 TO 19 YEARS	4074	4121	4171	4222	4390	4716
20 TO 34 YEARS	3581	3623	3667	3711	3859	4146
35 TO 54 YEARS	2595	2625	2657	2689	2796	3004
55 YEARS AND OLDER	2349	2376	2405	2434	2531	2719
TOTAL POPULATION	14497	14666	14845	15025	15622	16784
SUBLETTE COUNTY						
0 TO 4 YEARS	439	434	424	429	421	439
5 TO 19 YEARS	1297	1282	1252	1268	1243	1297
20 TO 34 YEARS	1234	1219	1191	1206	1183	1234
35 TO 54 YEARS	1088	1074	1050	1063	1042	1087
55 YEARS AND OLDER	819	809	791	801	785	819
TOTAL POPULATION	4877	4818	4708	4768	4674	4876

SOURCE: WESTERN RESEARCH CORPORATION; LARAMIE, WYOMING (1982)

Diamondville, and the Town of LaBarge. Within Sublette County, the discussion will be of the Town of Pinedale, the Town of Big Piney and the Town of Marbleton. Only the Town of Granger will be discussed within Sweetwater County. The housing demand for the baseline is projected using a procedure which balances housing preferences with housing cost and available supply as described in the socioeconomic technical appendix. The county projections provided below represent demand for the entire county including those towns for which individual housing demand is also described separately.

Lincoln County

The year around housing stock in Lincoln County increased by an average of 4.25 percent per year or 52 percent from 1970 to 1980 while population in the county grew by 41 percent. The average household size dropped from 3.4 in 1970 to 3.15 by 1980 accounting for higher growth in the housing stock than in population. In 1980, 8 percent of the total county housing stock was classified as seasonal which is primarily located in the northern areas of the county. These units are considered unavailable to meet demand of an in-migrating work force. The average housing cost in Lincoln County is set by that reflected in surveys in Kemmerer. The 1981 average mortgage payment was $640 per month while apartment rents were about $350 per month. Mobile home lot rents in the county averaged $115 per month. The housing stock in Diamondville and Kemmerer grew slightly faster than that in the county as a whole while housing in LaBarge grew at about the county rate. Land is presently available within and adjacent to Kemmerer, Diamondville, and LaBarge to support required future development. The 1981 vacancy rate in Lincoln County was estimated at about 3.5 percent by the Wyoming Housing Monitoring System, Department of Economic Planning and Development.

Lincoln County's housing stock is expected to follow an increase in demand of less than 1.4 percent per year from an estimated stock of 4,553 in 1982 to 5,692 by 2000. The housing stock is currently distributed as follows: single family, 74 percent; mobile homes, 16 percent; multi-family, 7 percent; and other, 3 percent. This relative distribution is expected to be maintained through 1990 without the project.

Town of Kemmerer

Table 3.2.2-2 shows Kemmerer is expected to retain its current proportion of the county housing demand without the project. The estimated current demand of 1,492 units is projected to increase to over 1,900 units by 2000. Kemmerer currently contains 63 percent single family homes, 16 percent mobile homes, 12 percent multi-family units, and over 8 percent other dwellings such as efficiency apartments or motel units.

Town of Diamondville

Housing demand in Diamondville without the Riley Ridge Project is provided in Table 3.2.2-3. Demand for housing is expected to grow at an annual average rate of 1 percent from an estimated 410 units in 1982 to 492 units by 2000. The housing mix in Diamondville is currently about 45 percent in single

TABLE 3.2.2-1

HISTORIC HOUSING SUPPLY[1] AND BASELINE HOUSING DEMAND[2] FOR LINCOLN COUNTY

Housing Type	1970	1980	1982	1983	1984	1985	1986
Single Family	2,359	3,201	3,357	3,306	3,324	3,352	3,375
Mobile Home	274	653	709	709	725	743	761
Multi-Family	121	329	334	326	325	326	325
Other	95	138	153	154	158	162	166
Total	2,849	4,321	4,553	4,495	4,532	4,583	4,627

Housing Type	1987	1988	1989	1990	1995	2000
Single Family	3,401	3,430	3,465	3,508	3,648	3,919
Mobile Home	781	801	819	828	860	925
Multi-Family	324	323	324	328	341	366
Other	171	175	179	182	189	203
Total	4,677	4,729	4,787	4,846	5,038	5,413

[1]1970 and 1980 housing supply (U.S. Census), 1982 housing supply (WRC estimate).

[2]1983 to 2000 housing demand projections (WRC).

Source: Western Research Corporation; Laramie, Wyoming (1982).

TABLE 3.2.2-2

HISTORIC HOUSING SUPPLY[1] AND BASELINE HOUSING DEMAND[2] FOR THE TOWN OF KEMMERER

Housing Type	1970	1980	1982	1983	1984	1985	1986
Single Family	NA	819	940	931	942	953	964
Mobile Home	NA	213	244	242	245	248	250
Multi-Family	NA	157	180	178	180	183	185
Other	NA	110	128	127	128	130	131
Total	794	1,299	1,492	1,478	1,495	1,514	1,530

Housing Type	1987	1988	1989	1990	1995	2000
Single Family	975	986	998	1,021	1,059	1,138
Mobile Home	253	256	259	265	276	297
Multi-Family	187	190	192	194	204	219
Other	133	134	136	138	143	153
Total	1,548	1,566	1,585	1,618	1,682	1,807

[1]1970 and 1980 housing supply (U.S. Census), 1982 housing supply (WRC estimate).

[2]1983 to 2000 housing demand projections (WRC).

Source: Western Research Corporation; Laramie, Wyoming (1982).

TABLE 3.2.2-3

HISTORIC HOUSING SUPPLY[1] AND BASELINE HOUSING DEMAND[2] FOR THE TOWN OF DIAMONDVILLE

Housing Type	1970	1980	1982	1983	1984	1985	1986
Single Family	NA	160	184	182	184	186	187
Mobile Home	NA	178	204	203	204	207	209
Multi-Family	NA	17	20	19	19	20	20
Other	NA	2	2	2	2	3	3
Total	195	357	410	406	409	416	419

Housing Type	1987	1988	1989	1990	1995	2000
Single Family	191	192	195	198	206	221
Mobile Home	212	215	217	220	228	245
Multi-Family	21	20	20	21	22	23
Other	3	3	3	3	3	4
Total	427	430	435	442	459	493

[1]1970 and 1980 housing supply (U.S. Census), 1982 housing supply (WRC estimate).

[2]1983 to 2000 housing demand projections (WRC).

Source: Western Research Corporation; Laramie, Wyoming (1982).

family, 50 percent in mobile homes, 5 percent in multi-family dwellings, and less than 1 percent in other types of units.

Town of LaBarge

Without the Riley Ridge Project, housing demand as shown in Table 3.2.2-4 for LaBarge is projected to increase from 134 in 1982 to 163 by 2000. Single family dwellings currently make up 56 percent of LaBarge's housing stock while mobile homes represent 37 percent and multi-family units are about 7 percent.

Sublette County

Within Sublette County, the year around housing stock grew at an average annual rate of 3.36 percent or 39 percent from 1970 to 1980. The county average household size dropped from 3.2 in 1970 to 2.86 by 1980. Seasonal housing units made up 33 percent of the total housing stock in Sublette County in 1980 reflecting the significant recreational influence within the county. According to the County Master Plan, 38 percent of subdivision lots are owned by out-of-state residents, 33 percent by Sweetwater County residents, 5 percent by other Wyoming residents, and only 24 percent by Sublette County residents. While Big Piney and Marbleton have 4 percent or less of their housing stock in the 1980 seasonal category, Pinedale has almost 7 percent seasonal dwellings. Both Big Piney and Pinedale grew at less than the county average annual rate, while Marbleton's growth rate was substantially higher. The county average 1981 housing costs are based on costs in Pinedale and are $625 for monthly mortgage payments, $240 per month for apartments, and $65 per month for mobile home spaces. Vacancy rates throughout the county are estimated by local residents to be extremely low, approaching 1 percent or lower. Developable land in or adjacent to Pinedale and Marbleton is available to meet future growth, however. Big Piney has relatively little developable land within its corporate boundaries. The Mayor of Big Piney feels that the town may be limited in its ability to expand by annexation due to reluctance of owners to sell surrounding lands.

Sublette County's baseline demand for housing is projected to rise from the 1982 level of about 1,880 units to 1,918 dwellings in 2000. Currently, the housing mix throughout the county is 64 percent single family, 20 percent mobile homes, 14 percent multi-family, and about 2 percent other dwelling types.

Town of Big Piney

Housing demand in Big Piney is expected to grow, as shown in Table 3.2.2-6, from 234 units in 1982 to 239 units by 2000. Sixty-four percent of the current stock is single family homes while mobile homes make up 26 percent. Multi-family and other dwellings account for the remaining 10 percent.

Town of Marbleton

Marbleton's baseline pattern of housing demand through 1990, shown in Table 3.2.2-7, is expected to be similar to that experienced throughout Sublette County. Demand is projected to rise from 188 in 1982 to 192 by 2000. Of the

TABLE 3.2.2-4

HISTORIC HOUSING SUPPLY[1] AND BASELINE HOUSING DEMAND[2] FOR THE TOWN OF LABARGE

Housing Type	1970	1980	1982	1983	1984	1985	1986
Single Family	NA	66	75	75	76	76	77
Mobile Home	NA	44	50	49	51	51	52
Multi-Family	NA	8	9	9	10	10	9
Other	NA	0	0	0	0	0	0
Total	87	118	134	133	137	137	138

Housing Type	1987	1988	1989	1990	1995	2000
Single Family	79	80	80	81	84	91
Mobile Home	52	53	53	54	56	61
Multi-Family	9	9	10	10	11	11
Other	0	0	0	0	0	0
Total	140	142	143	145	151	163

[1]1970 and 1980 housing supply (U.S. Census), 1982 housing supply (WRC estimate).

[2]1983 to 2000 housing demand projections (WRC).

Source: Western Research Corporation; Laramie, Wyoming (1982).

TABLE 3.2.2-5

HISTORIC HOUSING SUPPLY[1] AND BASELINE HOUSING DEMAND[2] FOR SUBLETTE COUNTY

Housing Type	1970	1980	1982	1983	1984	1985	1986
Single Family	1,013	1,156	1,203	1,213	1,201	1,199	1,208
Mobile Home	203	353	374	380	374	383	385
Multi-Family	75	254	268	272	268	274	276
Other	0	33	36	38	37	38	38
Total	1,291	1,796	1,881	1,903	1,880	1,894	1,907

Housing Type	1987	1988	1989	1990	1995	2000
Single Family	1,220	1,206	1,177	1,191	1,167	1,218
Mobile Home	385	377	365	372	365	380
Multi-Family	278	276	273	276	271	282
Other	38	37	36	37	36	38
Total	1,921	1,896	1,851	1,876	1,839	1,918

[1]1970 and 1980 housing supply (U.S. Census), 1982 housing supply (WRC estimate).

[2]1983 to 2000 housing demand projections (WRC).

Source: Western Research Corporation; Laramie, Wyoming (1982).

TABLE 3.2.2-6

HISTORIC HOUSING SUPPLY[1] AND BASELINE HOUSING DEMAND[2] FOR THE TOWN OF BIG PINEY

Housing Type	1970	1980	1982	1983	1984	1985	1986
Single Family	NA	142	150	152	150	152	152
Mobile Home	NA	58	61	62	61	62	62
Multi-Family	NA	22	22	23	22	22	22
Other	NA	1	1	1	1	1	1
Total	193	223	234	238	234	237	237

Housing Type	1987	1988	1989	1990	1995	2000
Single Family	154	152	148	150	146	154
Mobile Home	63	62	60	61	60	62
Multi-Family	23	22	22	22	22	22
Other	1	1	1	1	1	1
Total	241	237	231	234	229	239

[1]1970 and 1980 housing supply (U.S. Census), 1982 housing supply (WRC estimate).

[2]1983 to 2000 housing demand projections (WRC).

Source: Western Research Corporation; Laramie, Wyoming (1982).

TABLE 3.2.2-7

HISTORIC HOUSING SUPPLY[1] AND BASELINE HOUSING DEMAND[2] FOR THE TOWN OF MARBLETON

Housing Type	1970	1980	1982	1983	1984	1985	1986
Single Family	NA	87	91	92	91	92	93
Mobile Home	NA	83	87	88	87	88	89
Multi-Family	NA	9	10	10	10	10	10
Other	NA	0	0	0	0	0	0
Total	64	179	188	190	188	190	192

Housing Type	1987	1988	1989	1990	1995	2000
Single Family	93	92	90	91	89	93
Mobile Home	89	88	86	87	85	89
Multi-Family	10	10	10	10	10	10
Other	0	0	0	0	0	0
Total	192	190	186	188	184	192

[1]1970 and 1980 housing supply (U.S. Census), 1982 housing supply (WRC estimate).

[2]1983 to 2000 housing demand projections (WRC).

Source: Western Research Corporation; Laramie, Wyoming (1982).

current housing stock, 48 percent are single family dwellings, 46 percent are mobile homes, and multi-family units comprise 5 percent.

Town of Pinedale

Table 3.2.2-8 presents Pindale's expected housing demand in the baseline. The 1982 housing stock is estimated to be 444 units. Demand is projected to be 454 units in 2000 or an increase of 2 percent over the currently existing supply. The present supply is comprised of 77 percent single family units, 7 percent mobile homes, 10 percent multifamily dwellings, and 6 percent other categories.

Town of Granger, Sweetwater County

Granger is the town within Sweetwater County most likely to undergo the most significant increases in housing demand as a result of the Riley Ridge Project. Without the project, Granger can expect to grow by 44 percent from 1982 through 2000, as shown in Table 3.2.2-9. This represents about a 2 percent annual growth rate. The estimated current housing stock of 73 units is made up of 56 percent single family, 41 percent mobile homes, and 3 percent multi-family units.

3.2.3 FISCAL ANALYSIS AND PUBLIC SERVICES

Lincoln County

Lincoln County's projected revenue and expenditures, general administration, sheriff, road and bridge, fire, library, parks and recreation, and solid waste, are discussed in this section.

Revenue and Expenditures

At present Lincoln County has an assessed valuation of $247,903,000 as reported by the state assessor. Taxes levied against this assessed valuation are Lincoln County's single largest source of revenue. The second largest source of revenue comes from the three percent and the optional one percent sales tax. In 1983 it is expected that total revenue for the county will be approximately $6,566,100 (which includes cash on hand). Table 3.2.3-1 shows the projected baseline revenue for Lincoln County. As shown, revenue is projected to steadily increase from 1984 to 2000. The main source of this increase is expected to come from increases in assessed valuation attributable to increased mineral production in future years.

Table 3.2.3-2 shows Lincoln County projected baseline expenditures from 1983 to 2000. Expenditures are expected to be $5,647,200 in 1983 which produces a revenue surplus of $918,800 for that year. In future years, baseline expenditures are expected to increase slowly. No large capital expenditures are projected currently. Revenue surpluses are predicted to increase from 1984 to 1990 and then remain almost constant through 2000. The major reason for this increase in revenue surplus is that assessed valuation is expected to grow at a faster rate than the population and demand for county services.

TABLE 3.2.2-8

HISTORIC HOUSING SUPPLY[1] AND BASELINE HOUSING DEMAND[2] FOR THE TOWN OF PINEDALE

Housing Type	1970	1980	1982	1983	1984	1985	1986
Single Family	NA	374	342	346	342	345	347
Mobile Home	NA	36	33	33	33	33	33
Multi-Family	NA	48	44	44	44	44	45
Other	NA	27	25	25	25	25	25
Total	383	485	444	448	444	447	450

Housing Type	1987	1988	1989	1990	1995	2000
Single Family	350	345	338	342	335	350
Mobile Home	34	33	32	33	32	34
Multi-Family	45	44	43	44	43	45
Other	25	25	24	25	24	25
Total	454	447	437	444	434	454

[1]1970 and 1980 housing supply (U.S. Census), 1982 housing supply (WRC estimate).

[2]1983 to 2000 housing demand projections (WRC).

Source: Western Research Corporation; Laramie, Wyoming (1982).

TABLE 3.2.2-9

HISTORIC HOUSING SUPPLY[1] AND BASELINE HOUSING DEMAND[2] FOR THE TOWN OF GRANGER, SWEETWATER COUNTY

Housing Type	1970	1980	1982	1983	1984	1985	1986
Single Family	NA	39	41	40	41	41	42
Mobile Home	NA	29	30	29	30	30	31
Multi-Family	NA	2	2	2	2	2	2
Other	NA	0	0	0	0	0	0
Total	50	70	73	71	73	73	75

Housing Type	1987	1988	1989	1990	1995	2000
Single Family	43	44	44	45	50	57
Mobile Home	31	31	32	33	36	42
Multi-Family	2	2	2	2	2	2
Other	0	0	0	0	0	0
Total	76	77	78	80	88	101

[1]1970 and 1980 housing supply (U.S. Census), 1982 housing supply (WRC estimate).

[2]1983 to 2000 housing demand projections (WRC).

Source: Western Research Corporation; Laramie, Wyoming (1982).

TABLE 3.2.3-1

PROJECTED BASELINE LINCOLN COUNTY REVENUE (IN THOUSANDS OF DOLLARS)

CATEGORY	1983	1984	1985	1986	1987
BASELINE VALUATION	247903.0	268730.0	301330.0	348242.0	381871.0
COUNTY CLERK	80.0	78.4	79.3	80.3	81.2
CLERK OF COURT	26.0	25.5	25.8	26.1	26.4
COUNTY TREASURY					
INVESTMENT INTEREST	180.0	180.0	180.0	180.0	180.0
MISC. FEES AND LICENSE	55.0	53.9	54.5	55.2	55.8
MUNICIPAL SALES TAX 1 & 3%	900.0	863.9	875.7	887.1	898.6
USE TAX	12.0	12.0	12.0	12.0	12.0
PILT FUNDS	270.0	270.0	270.0	270.0	270.0
GASOLINE TAX	140.0	137.2	138.9	140.5	142.1
FOREST RESERVE PAYMENT	50.0	50.0	50.0	50.0	50.0
SEVERANCE TAX	260.0	301.0	326.6	344.9	356.2
CIGARETTE TAX	6.0	5.9	6.0	6.0	6.1
GOVERNORS EMERGENCY FUND	63.0	0.0	0.0	0.0	0.0
JUSTICE OF THE PEACE	20.0	19.6	19.8	20.1	20.3
SHERIFFS FEES	3.0	2.9	3.0	3.0	3.0
COMMUNICATIONS	90.0	0.0	0.0	0.0	0.0
REVENUE SHARING	292.0	0.0	0.0	0.0	0.0
TAX REVENUE					
GENERAL FUND TAXES	2487.0	2695.9	3022.9	3493.6	3830.9
COUNTY FAIR TAXES	87.7	95.1	106.7	123.3	135.2
COUNTY LIBRARY TAXES	400.7	433.7	486.3	562.1	616.3
CASH ON HAND	1143.8	0.0	0.0	0.0	0.0
TOTAL REVENUE	6566.1	5225.0	5657.5	6254.0	6684.1

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TABLE 3.2.3-1 (CONTINUED)

PROJECTED BASELINE LINCOLN COUNTY REVENUE (IN THOUSANDS OF DOLLARS)

CATEGORY	1988	1989	1990	1995	2000
BASELINE VALUATION	392263.0	413918.0	437176.0	439915.0	444854.0
COUNTY CLERK	82.1	83.1	84.1	87.5	94.0
CLERK OF COURT	26.7	27.0	27.3	28.4	30.5
COUNTY TREASURY					
INVESTMENT INTEREST	180.0	180.0	180.0	180.0	180.0
MISC. FEES AND LICENSE	56.5	57.2	57.8	60.1	64.6
MUNICIPAL SALES TAX 1 & 3%	910.6	923.3	936.0	973.9	1058.8
USE TAX	12.0	12.0	12.0	12.0	12.0
PILT FUNDS	270.0	270.0	270.0	270.0	270.0
GASOLINE TAX	143.8	145.5	147.3	153.1	164.5
FOREST RESERVE PAYMENT	50.0	50.0	50.0	50.0	50.0
SEVERANCE TAX	364.7	374.7	385.9	467.6	603.0
CIGARETTE TAX	6.2	6.2	6.3	6.6	7.0
GOVERNORS EMERGENCY FUND	0.0	0.0	0.0	0.0	0.0
JUSTICE OF THE PEACE	20.5	20.8	21.0	21.9	23.5
SHERIFFS FEES	3.1	3.1	3.2	3.3	3.5
COMMUNICATIONS	0.0	0.0	0.0	0.0	0.0
REVENUE SHARING	0.0	0.0	0.0	0.0	0.0
TAX REVENUE					
GENERAL FUND TAXES	3935.2	4152.4	4385.7	4413.2	4462.8
COUNTY FAIR TAXES	138.9	146.5	154.8	155.7	157.5
COUNTY LIBRARY TAXES	633.1	668.1	705.6	710.0	718.0
CASH ON HAND	0.0	0.0	0.0	0.0	0.0
TOTAL REVENUE	6833.2	7119.9	7427.2	7593.4	7899.8

SOURCE: WESTERN RESEARCH CORPORATION; LARAMIE, WYOMING (1982).

TABLE 3.2.3-2

PROJECTED BASELINE LINCOLN COUNTY EXPENDITURES (IN THOUSANDS OF DOLLARS)

CATEGORY	1983	1984	1985	1986	1987
EXPENDITURES					
GENERAL COUNTY GOVERNMENT	1066.5	1049.6	1062.6	1075.0	1087.3
COUNTY COMMISSIONERS	79.4	79.4	79.4	79.4	79.4
COUNTY SURVEYOR	70.0	70.0	70.0	70.0	70.0
COUNTY CORONER	35.8	35.8	35.8	35.8	35.8
DEVELOPMENT ADMINISTRATION	37.2	36.4	36.9	37.3	37.8
AGRICULTURE DEPARTMENT	37.8	37.8	37.8	37.8	37.8
COURTS AND JAIL	622.9	610.4	618.0	625.2	632.3
ROAD AND BRIDGE	1194.0	1170.1	1184.5	1198.3	1212.1
WATER COMMISSIONER	6.7	6.7	6.7	6.7	6.7
ELECTIONS	32.5	31.9	32.2	32.6	33.0
HEALTH OFFICIER	40.8	40.8	40.8	40.8	40.8
OTHER GENERAL ACCOUNTS	1898.9	1860.9	1883.9	1905.8	1927.6
REVENUE SHARING	524.8	0.0	0.0	0.0	0.0
TOTAL EXPENDITURES	5647.2	5029.7	5088.6	5144.7	5200.4
REVENUE SURPLUS	918.8	195.2	569.0	1109.4	1483.6

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TABLE 3.2.3-2 (CONTINUED)

PROJECTED BASELINE LINCOLN COUNTY EXPENDITURES (IN THOUSANDS OF DOLLARS)

CATEGORY	1988	1989	1990	1995	2000
EXPENDITURES					
GENERAL COUNTY GOVERNMENT	1100.0	1113.4	1126.9	1171.7	1258.8
COUNTY COMMISSIONERS	79.4	79.4	79.4	79.4	79.4
COUNTY SURVEYOR	70.0	70.0	70.0	70.0	70.0
COUNTY CORONER	35.8	35.8	35.8	35.8	35.8
DEVELOPMENT ADMINISTRATION	38.2	38.7	39.1	40.7	43.7
AGRICULTURE DEPARTMENT	37.8	37.8	37.8	37.8	37.8
COURTS AND JAIL	639.7	647.5	655.3	681.4	732.1
ROAD AND BRIDGE	1226.2	1241.1	1256.2	1306.1	1403.3
WATER COMMISSIONER	6.7	6.7	6.7	6.7	6.7
ELECTIONS	33.4	33.8	34.2	35.6	38.2
HEALTH OFFICIER	40.8	40.8	40.8	40.8	40.8
OTHER GENERAL ACCOUNTS	1950.1	1973.9	1997.8	2077.2	2231.7
REVENUE SHARING	0.0	0.0	0.0	0.0	0.0
TOTAL EXPENDITURES	5257.9	5318.8	5380.0	5583.0	5978.2
REVENUE SURPLUS	1575.3	1801.1	2047.2	2010.4	1921.6

SOURCE: WESTERN RESEARCH CORPORATION; LARAMIE, WYOMING (1982).

Lincoln County is not expected to encounter any major fiscal difficulties before the year 2000.

Lincoln County currently has a bonding capacity of $4,958,060 with no general obligation debts. This bonding capacity is expected to increase substantially as assessed valuation increases. (General obligation bonding limit is set at 2 percent of assessed valuation.)

General Administration

Lincoln County has 28 full-time employees at the courthouse (Wade 1982 personal communication). However, there are 35-40 employees in the courthouse representing both state and county agencies. The courthouse is being remodeled and should be completed within the next 2 to 3 years. Although present facilities are being remodeled, no additional space is being provided. This means space in the courthouse will be inadequate to meet future needs.

Anticipated growth will cause some need for increased personnel in general administration. In 1990 the county will need 30 people in administration. By 2000, 34 employees will be needed to meet demand for services.

Sheriff's Department

The Sheriff's Department employs 31 full- and part-time people in the following categories: 1 sheriff, 10 officers, 1 investigator, 5 jailers, 10 dispatchers, and 4 administrative personnel (OIA 1982). The Sheriff's Department also maintains jail holding facilities in Afton and Cokeville and a 22-cell jail in Kemmerer. The jail in Kemmerer is relatively new, having been built in 1978. The department also has nine patrol cars and one unmarked car.

Some increases in personnel needs and equipment will be needed with population growth. In 1990 it is expected that 15 sworn officers, 20 support staff, and 11 vehicles will be needed. By 2000, 17 sworn officers, 23 support staff, and 13 vehicles will be needed.

Road and Bridge Department

The Road and Bridge Department in Lincoln County is divided in two parts for administrative purposes. One administrative area covers the northern portion of Lincoln County which is located to the west of the mountains, and thus will not be affected by the proposed or alternative actions. For this reason only the southern unit of the Road and Bridge Department will be discussed. This unit currently employs seven full-time and one part-time person in the southern half of Lincoln County.

Facilities for the southern unit are located in Diamondville. These facilities consist mainly of a garage and lot for equipment and materials storage. Present facilities have been described as adequate (Kirkwood 1982 personal communication). The department, however, is requesting 20 acres of land from the BLM for a new Road and Bridge Department lot and facility outside of Diamondville.

Staff needs are expected to increase in the Road and Bridge Department as population growth occurs. Eight staff are expected to be needed in 1990 and nine are expected to be needed in 2000.

Fire Department

Lincoln County maintains no fire department. The southern portion of Lincoln County recently formed a special fire district, which is headquartered in Kemmerer. This is discussed under Kemmerer.

Library

Lincoln County Public Library is located in Kemmerer. The library employs two full-time and two part-time people in Kemmerer. The Kemmerer library has 18,500 volumes. The county also maintains library facilities at Cokeville, Afton, and LaBarge. Employees at these facilities total one full-time and six part-time people (OIA 1982).

A new library facility is being completed in Kemmerer this year. This facility will include a community meeting room (OIA 1982).

Library staffing and number of volumes is currently inadequate. In 1990 it is projected that 13 staff members and 35,000 volumes will be needed to meet population demands. By 2000 these needs will increase to 14 staff members and 39,000 volumes.

Recreation

Lincoln County has no county funded recreation department.

Solid Waste

Lincoln County maintains two landfill sites, one in the northern part of the county and one in the southern portion. The south Lincoln County site is approximately 44 acres and is estimated to have a remaining life of approximately 10+ years (OIA 1982). There are two full-time employees at the site but the site is maintained by the Road and Bridge Department.

The north Lincoln County site consists of approximately 23 acres, but less than 5 percent of this area has been utilized (OIA 1982). (The site is approximately two years old.) The site has two employees who maintain the site 1.5 days per week.

Local definition of the adequacy and capacity of the county landfill sites indicates the sites can meet future demand for the next several years. By 1990, a cumulative total of 29.3 acres will have been utilized and by 2000, over 64 acres will have been used.

Town of Kemmerer

The Town of Kemmerer, the county seat of Lincoln County, is centrally located in southern Lincoln County and adjacent to Diamondville. This section discusses revenue and expenditures and the following public services in

Kemmerer: general administration, police, fire, municipal water, municipal sewer, street, solid waste, and parks and recreation.

Revenue and Expenditures

The Town of Kemmerer's general fund revenue has more than doubled in the past three fiscal years, growing from $1.0 million in 1979 to over $2 million in 1982. Table 3.2.3-3 shows revenue projections for Kemmerer through 2000. Revenue items including interest, revenue sharing, and sale of equipment were not projected since their continuation is uncertain. The large total for 1982 is attributable to several major capital projects included in the budget for that year. Projections indicate steady growth in revenue through 2000, with over $3 million projected for that year.

Costs for additional needed capital facilities and equipment are not included in the projections, however. The following list summarizes needed capital expenditures which were identified in the above sections and through conversations with the town administrator for Kemmerer:

Water Improvements	$1,045,000
Street Improvements:	
Willow Addition	950,000
Other Anticipated Improvements	500,000
City Hall (includes jail)	900,000
Civic Center (includes an indoor recreation facility)	1,200,000
Water Storage	759,000
Fire Station	250,000
1,500 GPM Pumper	100,000
Total	$5,704,000

The costs for the above items were not included in the expenditure forecasts because decisions have not been made on how to fund most of these items. Further, municipalities in Wyoming are limited in their ability to incur debt, therefore, it is confusing to project these needs as if the city could immediately finance them.

The operating revenue surpluses total about $2,000,000 from 1983 to 1990. Thus, the town will be unable to pay for these needed capital expenditures unless additional revenue sources or new financing mechanisms can be identified.

Table 3.2.3-4 shows expenditure projections for Kemmerer. Comparison of revenue and expenditure projections through 2000 indicates that revenue surpluses are projected throughout that period, with projected revenue surpluses ranging from $172,000 in 1983 to almost $600,000 in 2000.

Kemmerer currently has $157,000 in existing general obligation debt (OIA 1982). Because this debt is for water projects, it does not effect bonding capacity. Thus, Kemmerer has a current bonding capacity of $255,204. This

TABLE 3.2.3-3

PROJECTED BASELINE TOWN OF KEMMERER REVENUE (IN THOUSANDS OF DOLLARS)

CATEGORY	1982	1983	1984	1985	1986	1987
ASSESSED VALUATION	6380.1	6323.8	6390.0	6468.0	6544.4	6619.1
— REVENUE —						
MUNICIPAL TAX	64.9	63.2	63.9	64.7	65.4	66.2
SALES AND USE TAX	661.7	630.3	637.1	645.9	654.3	662.7
CIGARETTE TAX	43.4	43.2	43.7	44.2	44.7	45.2
GASOLINE TAX	38.8	38.4	38.8	39.3	39.7	40.2
MINERAL ROYALTIES	177.4	177.4	177.4	177.4	177.4	177.4
2% SEVERANCE TAX	308.3	336.0	352.2	382.1	403.5	416.6
LICENSES,FEES,AND FINES	163.1	161.7	163.4	165.4	167.4	169.3
INTEREST	103.6	0.0	0.0	0.0	0.0	0.0
REVENUE SHARING	23.7	0.0	0.0	0.0	0.0	0.0
SALE OF EQUIPMENT	2.2	0.0	0.0	0.0	0.0	0.0
FRANCHISE TAX	23.6	26.5	26.7	27.1	27.4	27.7
MISCELLANEOUS	30.3	30.0	30.3	30.7	31.1	31.4
WATER USER FEES	517.1	512.5	517.9	524.2	530.4	536.5
SEWER USER FEES	200.9	199.2	201.2	203.7	206.1	208.5
SOLID WASTE FEES	118.7	117.7	118.9	120.4	121.8	123.2
RECREATION FEES	10.4	10.3	10.4	10.6	10.7	10.8
MAJOR CAPITAL PROJECTS						
WATER IMPROVEMENTS	1570.0	0.0	0.0	0.0	0.0	0.0
SEWER IMPROVEMENTS	4370.4	0.0	0.0	0.0	0.0	0.0
OTHER PROJECTS	2675.0	0.0	0.0	0.0	0.0	0.0
TOTAL REVENUE	11103.5	2346.4	2382.0	2435.5	2479.8	2515.6

(CONTINUED ON NEXT PAGE)

TABLE 3.2.3-3 (CONTINUED)

PROJECTED BASELINE TOWN OF KEMMERER REVENUE (IN THOUSANDS OF DOLLARS)

CATEGORY	1988	1989	1990	1995	2000
ASSESSED VALUATION	6695.5	6776.9	6860.1	7131.6	7662.9
--- REVENUE ---					
MUNICIPAL TAX	67.0	67.8	68.6	71.3	76.6
SALES AND USE TAX	671.6	680.9	690.4	718.3	780.9
CIGARETTE TAX	45.7	46.3	46.9	48.7	52.4
GASOLINE TAX	40.6	41.1	41.6	43.3	46.5
MINERAL ROYALTIES	177.4	177.4	177.4	177.4	177.4
2% SEVERANCE TAX	426.6	438.3	451.5	547.0	705.4
LICENSES,FEES,AND FINES	171.2	173.3	175.4	182.4	196.0
INTEREST	0.0	0.0	0.0	0.0	0.0
REVENUE SHARING	0.0	0.0	0.0	0.0	0.0
SALE OF EQUIPMENT	0.0	0.0	0.0	0.0	0.0
FRANCHISE TAX	28.0	28.4	28.7	29.8	32.1
MISCELLANEOUS	31.8	32.2	32.6	33.9	36.4
WATER USER FEES	542.7	549.3	556.0	578.0	621.1
SEWER USER FEES	210.9	213.4	216.0	224.6	241.3
SOLID WASTE FEES	124.6	126.1	127.6	132.7	142.6
RECREATION FEES	10.9	11.1	11.2	11.6	12.5
MAJOR CAPITAL PROJECTS					
WATER IMPROVEMENTS	0.0	0.0	0.0	0.0	0.0
SEWER IMPROVEMENTS	0.0	0.0	0.0	0.0	0.0
OTHER PROJECTS	0.0	0.0	0.0	0.0	0.0
TOTAL REVENUE	2548.9	2585.5	2624.0	2799.0	3121.1

SOURCE: WESTERN RESEARCH CORPORATION; LARAMIE, WYOMING (1982).

TABLE 3.2.3-4

PROJECTED BASELINE TOWN OF KEMMERER EXPENDITURES (IN THOUSANDS OF DOLLARS)

CATEGORY	1982	1983	1984	1985	1986	1987
--- EXPENDITURES ---						
GENERAL ADMINISTRATION	177.6	175.9	177.7	179.9	182.0	184.1
FIRE DEPARTMENT						
OPERATING EXPENSES	38.2	38.0	38.4	38.9	39.3	39.8
CAPITAL FACILITIES	0.0	0.0	0.0	0.0	0.0	0.0
POLICE DEPARTMENT						
OPERATING EXPENSES	352.2	349.1	352.8	357.1	361.3	365.4
CAPITAL INVESTMENTS	22.0	22.0	22.0	22.0	22.0	22.0
STREETS AND ALLEYS						
OPERATING EXPENSES	402.6	399.1	403.2	408.2	413.0	417.7
CAPITAL INVESTMENTS	179.8	179.8	179.8	179.8	179.8	179.8
WATER DEPARTMENT						
OPERATING EXPENSES	330.2	327.1	330.6	334.6	338.6	342.4
CAPITAL INVESTMENTS	97.1	97.1	97.1	97.1	97.1	97.1
SEWER DEPARTMENT						
OPERATING EXPENSES	205.4	203.5	205.6	208.1	210.6	213.0
CAPITAL INVESTMENTS	101.9	101.9	101.9	101.9	101.9	101.9
SOLID WASTE DEPARTMENT						
OPERATING EXPENSES	77.5	76.8	77.6	78.5	79.4	80.3
CAPITAL INVESTMENTS	80.0	80.0	80.0	80.0	80.0	80.0
PARKS AND RECREATION	33.0	32.7	33.1	33.5	33.9	34.2
GOLF COURSE						
OPERATING EXPENSES	66.6	66.0	66.7	67.5	68.3	69.1
CAPITAL INVESTMENTS	13.1	13.1	13.1	13.1	13.1	13.1
MUNICIPAL COURT	12.5	12.4	12.5	12.7	12.8	13.0
MAJOR CAPITAL PROJECTS	8615.4	0.0	0.0	0.0	0.0	0.0
TOTAL EXPENDITURES	10805.1	2174.4	2192.0	2212.8	2233.1	2252.9
REVENUE SURPLUS	298.4	172.0	190.0	222.7	246.8	262.7

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TABLE 3.2.3-4 (CONTINUED)

PROJECTED BASELINE TOWN OF KEMMERER EXPENDITURES (IN THOUSANDS OF DOLLARS)

CATEGORY	1988	1989	1990	1995	2000
--- EXPENDITURES ---					
GENERAL ADMINISTRATION	136.2	188.5	190.8	198.3	213.1
FIRE DEPARTMENT					
OPERATING EXPENSES	40.2	40.7	41.2	42.9	46.1
CAPITAL FACILITIES	0.0	0.0	0.0	0.0	0.0
POLICE DEPARTMENT					
OPERATING EXPENSES	369.6	374.1	378.7	393.7	423.1
CAPITAL INVESTMENTS	22.0	22.0	22.0	22.0	22.0
STREETS AND ALLEYS					
OPERATING EXPENSES	422.5	427.7	432.9	450.0	483.6
CAPITAL INVESTMENTS	179.8	179.8	179.8	179.8	179.8
WATER DEPARTMENT					
OPERATING EXPENSES	346.4	350.6	354.9	368.9	396.4
CAPITAL INVESTMENTS	97.1	97.1	97.1	97.1	97.1
SEWER DEPARTMENT					
OPERATING EXPENSES	215.4	218.1	220.7	229.5	246.6
CAPITAL INVESTMENTS	101.9	101.9	101.9	101.9	101.9
SOLID WASTE DEPARTMENT					
OPERATING EXPENSES	81.3	82.3	83.3	86.6	93.0
CAPITAL INVESTMENTS	80.0	80.0	80.0	80.0	80.0
PARKS AND RECREATION	34.6	35.1	35.5	36.9	39.6
GOLF COURSE					
OPERATING EXPENSES	69.9	70.7	71.6	74.4	80.0
CAPITAL INVESTMENTS	13.1	13.1	13.1	13.1	13.1
MUNICIPAL COURT	13.1	13.3	13.5	14.0	15.0
MAJOR CAPITAL PROJECTS	0.0	0.0	0.0	0.0	0.0
TOTAL EXPENDITURES	2273.2	2294.9	2317.0	2389.1	2530.3
REVENUE SURPLUS	275.7	290.6	307.0	409.9	590.3

SOURCE: WESTERN RESEARCH CORPORATION; LARAMIE, WYOMING (1982).

capacity is calculated as 4 percent of assessed valuation and will therefore increase with assessed valuation.

General Administration

Kemmerer has six full-time positions and one part-time position in general administration. According to the Town Administrator, the town presently needs one more full-time position (Johnson 1982 personal communication).

The baseline projections indicate Kemmerer will need an additional one and one-half positions by 2000. Additionally, the town needs a new city hall, the cost of which has been estimated at $900,000. No revenue source for the city hall has been identified as yet.

Police Department

The Kemmerer Police Department employs nine sworn officers and two clerks. The police department facility is located in the basement of the post office. This facility is defined as inadequate by the police chief and is a major departmental concern (OIA 1982). The chief of police has identified the following needs:

- a clerk of the municipal court (this function is administered by the chief),
- an investigator,
- two new police vehicles, and
- a computer system for record keeping (OIA 1982)
- a new jail

The police department currently has three patrol cars and one animal control truck.

Using the standards for municipal police departments in Wyoming, Kemmerer's Police Department should be able to handle baseline population growth. Specifically, the department will need nine officers, four staff positions, and three vehicles in 2000. To meet these needs only two additional staff positions will have to be added. The cost of a new police department is included in the $900,000 estimate for a new city hall.

Fire Department

The Kemmerer Fire Department consists of a fire chief (part-time) and 24 volunteers. The department is housed in a fire station in Kemmerer, but a new facility is needed. Also a new 1,000-1,500 gallon per minute pumper is needed. The Kemmerer Fire Department serves Kemmerer and the southern portion of Lincoln County. Voters in southern Lincoln County have just approved a special fire district to fund improvements in the department (OIA 1982). According to the Town Administrator, the department also needs more fire fighting equipment to cover the southern portion of Lincoln County (Johnson 1982 personal communication). Cost estimates for a new facility and equipment are not yet available.

Based on Kemmerer's projected baseline population, the department will need about 26 volunteers by 1990 and 29 volunteers by 2000.

Municipal Water System

The municipal water system in Kemmerer serves both Kemmerer and Diamondville. The system serves 964 residential taps and 170 commercial taps (Wyoming Association of Municipalities 1981). The system's 5 million gallons per day (MGD) capacity comes from diversion rights on the Ham's Fork River (Sorenson 1982 personal communication). Only 2.5 million gallons per day treated storage capacity is available, however (average daily usage is 3.5 MGD) (OIA 1982).

Kemmerer is presently making the following additions:

- 2 million gallons of additional treated storage,
- 3 million gallons of additional treated storage at low level tank form,
- new adjustable water plant intake structure, and
- replacement of old water lines (OIA 1982).

The above improvements are being made with grants from several sources totaling almost $1,600,000 (cf. Annual Budget, Kemmerer, Wyoming, June 1, 1981 to June 30, 1982).

The town employs 10 full-time and 3 part-time people to operate the water and sewer system in Kemmerer. Upgrading of the water system has been one of the main concerns of the town in the past few years and steps are currently being undertaken to ensure adequate water capacity (both intake and distribution) to accommodate future growth (Johnson 1982 personal communication).

Because Kemmerer provides water for Diamondville, the populations of both towns are used for estimating future water needs. Table 3.2.3-5 indicates 1.06 million gallons per day of water will be needed by 1990. In 2000, 1.18 million gallons per day of water will be required for the populations of both Kemmerer and Diamondville. This is well within the treatment capacity of the existing system. A need for additional municipal water rights may become necessary by the latter part of this decade (Johnson 1982, personal communication).

Municipal Sewer System

Kemmerer's municipal sewer system serves 782 residential users and 140 commercial users (Wyoming Association of Municipalities 1981). The town has just completed construction of a new oxidation ditch sewage treatment system. The capacity of the system is rated at 1.45 million gallons per day (peak capacity is 2.2 MGD) and is running at 60 percent of capacity (Sorenson 1982 personal communication). When Diamondville is added to the system, an additional 20 percent of the capacity will be accounted for.

Kemmerer is also in the process of replacing outdated clay pipes and undersized lines. Personnel for the sewage treatment plant were discussed above (Municipal Water System).

Because Diamondville has installed the necessary equipment to connect with Kemmerer's system, populations of both towns are used as an estimate of needed capacity. Table 3.2.3-6 shows a need for 0.69 million gallons per day of

TABLE 3.2.3-5

PROJECTED BASELINE REQUIREMENTS FOR KEMMERER MUNICIPAL WATER SYSTEM[1]

Category	Presently Available[2]	Adequate for 1982	1983	1984	1985	1986	1987	1988	1989	1990	1995	2000
Capacity (million gallons/ day)	5.00	0.98	0.97	0.98	1.00	1.01	1.02	1.03	1.04	1.06	1.10	1.18

Source: Western Research Corporation; Laramie, Wyoming, 1982.

[1]Water systems requirements based on requirements for Kemmerer and Diamondville, assuming an average annual daily use rate of 200 gallons per person (see Appendix A).

[2]Personal conversation with Dave Sorenson, Superintendent, Water and Sewer Department, Kemmerer.

TABLE 3.2.3-6

PROJECTED BASELINE REQUIREMENTS FOR KEMMERER MUNICIPAL SEWER SYSTEM[1]

Category	Presently Available[2]	Adequate for 1982	1983	1984	1985	1986	1987	1988	1989	1990	1995	2000
Capacity (million gallons/ day)	1.45	0.64	0.63	0.64	0.65	0.65	0.66	0.67	0.68	0.69	0.71	0.77

Source: Western Research Corporation; Laramie, Wyoming, 1982.

[1]Water systems requirements based on requirements for Kemmerer and Diamondville, assuming an average annual daily treatment rate of 130 gallons per person.

[2]Personal conversation with Dave Sorenson, Superintendent, Water and Sewer Department, Kemmerer.

needed sewage treatment capacity in the year 1990 and 0.77 million gallons per day by 2000. These needs are within the capacity of the existing system because the town has just finished a new treatment plant and expansion of the collection system.

Street Department

When Lincoln County voters approved the optional 1 percent sales tax, Kemmerer residents were asked to prioritize the town's needs. Street improvement was one of the main items listed by local residents. The town is in the process of making street improvements.

At present, the Street Department employs 12 full-time people. The Street Department is in need of three additional pieces of equipment at present: 2 8-yard dump trucks with snowplows, and 1 street sweeper. The town has no way to purchase this equipment at present. The estimated costs of the dump trucks alone is $160,000.

The current facility for housing the Street Department consists of the old Highway Department garage. This facility is presently judged as too small and inadequate (Johnson 1982 personal conversation). There are no plans at present for expanding the existing facility or for building a new one.

With population growth, the Street Department in Kemmerer will need additional staff. Thirteen staff members will be needed in 1990. In 2000, staff needs will increase to 14 positions. The town administrator indicates that about $950,000 presently is needed for street improvements.

Solid Waste Disposal

Solid waste disposal is handled by three full-time garbage men in Kemmerer. One additional position will be needed by 2000. The county has taken over operation of the landfill site where Kemmerer dumps its garbage. This site is adequate through 2000.

Parks and Recreation

Three full-time and 10 part-time people run the Parks and Recreation Department and departmental programs for Kemmerer. The parks and recreation facilities consist of the following:

Archie Neil Park (4 acres),
Outdoor swimming pool,
Outdoor tennis courts (6),
Golf course, and
Little League fields.

Kemmerer has requested 225 acres of BLM land under the Recreation and Public Purpose Act to be set aside for a summer park. At present, however, the main problem for Kemmerer is the absence of indoor recreation facilities for winter use. Kemmerer residents would like to see the following developed:

Civic Center Complex/Recreation Center,
Development of BLM land for a park, and

Development of existing Archie Neil Park
(Johnson 1982 personal conversation).

At present there are no available funds for development of additional park and recreational facilities.

Kemmerer will have a total of 229 acres of park land available when the BLM approves the pending request. However, staff needs will increase somewhat with 4 full-time and 12 part-time positions needed by 2000.

Town of Diamondville

The Town of Diamondville is located directly south of and contiguous to Kemmerer on Highway 189. This section discusses revenue and expenditures as well as the following services and facilities in Diamondville: general administration, police, fire, municipal water, municipal sewer, street, solid waste, and parks and recreation.

Revenue and Expenditures

The Town of Diamondville is in good fiscal condition. As indicated in Table 3.2.3-7, revenue is expected to increase steadily from 1984 to 2000.

Expenditures for the town are projected in Table 3.2.3-8. As can be noted, expenditures are projected to remain below revenue from 1982 to 2000. Revenue surpluses are predicted to be present in all years.

This analysis does not include any capital projects related to developing a new water and sewer system. At present Diamondville's systems are either connected (water) or expected to be connected (sewer) to Kemmerer's systems. The revenue and expenditure analysis also does not include a new city hall because no cost estimates for construction exist.

Diamondville has no existing general obligation debt. The current general obligation bonding capacity is $53,968. This capacity will increase gradually with increases in assessed valuation. (The debt limit is calculated at 4 percent of assessed valuation.)

General Administration

The Town of Diamondville currently employs five full-time people in general administration. The town hall is presently adequate but at capacity. There are no current plans or funding sources for a new town hall (Hatch 1982 personal communication).

There will be additional demand for general administration personnel with baseline growth. By 2000, six positions will be needed; this is only one more position over what is presently available.

Police Department

Diamondville currently has two police officers and one police car. The county

TABLE 3.2.3-7

PROJECTED BASELINE TOWN OF DIAMONDVILLE REVENUE (IN THOUSANDS OF DOLLARS)

CATEGORY	1982	1983	1984	1985	1986	1987
ASSESSED VALUATION	1349.2	1341.7	1355.8	1373.5	1388.9	1405.4
REVENUE						
MUNCIPAL BOND + MILL LEVY	13.9	10.7	10.8	11.0	11.1	11.2
SALES + USE TAX	195.2	204.6	206.8	209.6	212.4	215.1
CIGARETTE TAX	.3	.3	.3	.3	.3	.3
GASOLINE TAX	7.4	7.3	7.4	7.5	7.6	7.7
MINERAL ROYALTIES	47.4	47.3	47.3	47.3	47.3	47.3
SEVERANCE TAX	93.1	103.1	108.1	117.3	123.9	127.9
LICENSES,FEES,AND FINES	14.4	14.2	14.4	14.6	14.7	14.9
REVENUE SHARING	4.4	9.0	0.0	0.0	0.0	0.0
FRANCHISE TAX	6.0	7.0	7.0	7.0	7.0	7.0
RECREATION	0.0	6.0	0.0	0.0	0.0	0.0
GRANT-COAL TAX	378.9	0.0	0.0	0.0	0.0	0.0
INTEREST	12.8	13.0	13.0	13.0	13.0	13.0
SEWER USERS FEES	13.0	12.9	13.0	13.2	13.3	13.5
WATER USERS FEES	125.9	124.7	126.0	127.6	129.0	130.6
TOTAL REVENUE	912.5	560.1	554.1	568.4	579.7	588.5

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TABLE 3.2.3-7 (CONTINUED)

PROJECTED BASELINE TOWN OF DIAMONDVILLE REVENUE (IN THOUSANDS OF DOLLARS)

CATEGORY	1988	1989	1990	1995	2000
ASSESSED VALUATION	1420.7	1438.4	1456.1	1513.9	1626.0
REVENUE					
MUNCIPAL BOND + MILL LEVY	11.4	11.5	11.6	12.1	13.0
SALES + USE TAX	218.0	221.0	224.1	233.1	253.5
CIGARETTE TAX	.3	.4	.4	.4	.4
GASOLINE TAX	7.8	7.8	7.9	8.3	8.9
MINERAL ROYALTIES	47.3	47.3	47.3	47.3	47.3
SEVERANCE TAX	130.9	134.5	138.6	167.9	216.5
LICENSES,FEES,AND FINES	15.1	15.3	15.5	16.1	17.3
REVENUE SHARING	0.0	0.0	0.0	0.0	0.0
FRANCHISE TAX	7.0	7.0	7.0	7.0	7.0
RECREATION	0.0	0.0	0.0	0.0	0.0
GRANT-COAL TAX	0.0	0.0	0.0	0.0	0.0
INTEREST	13.0	13.0	13.0	13.0	13.0
SEWER USERS FEES	13.6	13.8	14.0	14.5	15.6
WATER USERS FEES	132.0	133.6	135.3	140.7	151.1
TOTAL REVENUE	596.3	605.2	614.6	660.3	743.5

SOURCE: WESTERN RESEARCH CORPORATION; LARAMIE, WYOMING (1982).

TABLE 3.2.3-8

PROJECTED BASELINE TOWN OF DIAMONDVILLE EXPENDITURES (IN THOUSANDS OF DOLLARS)

CATEGORY	1982	1983	1984	1985	1986	1987
EXPENDITURES						
GENERAL FUND						
GENERAL GOVERNMENT	49.4	48.9	49.5	50.1	50.7	51.3
PUBLIC SAFETY	5.0	0.0	0.0	0.0	0.0	0.0
STREETS AND ALLEY	115.7	114.6	115.8	117.3	118.7	120.1
POLICE DEPARTMENT	35.8	50.9	51.4	52.1	52.7	53.3
POLICE JUDGE	1.4	1.4	1.4	1.4	1.5	1.5
CAPITAL IMPROVEMENTS	0.0	2.9	0.0	0.0	0.0	0.0
HEALTH AND SANITATION	14.8	82.0	15.5	0.0	0.0	0.0
DIAMONDVILLE PARK	1.6	6.0	0.0	0.0	0.0	0.0
EQUIPMENT NEEDS	0.0	55.0	20.0	20.0	20.0	20.0
PAVING & WATER (GRANT)	378.9	0.0	0.0	0.0	0.0	0.0
WATER	136.8	135.5	137.0	138.7	140.3	142.0
TOTAL EXPENDITURES	739.5	497.2	390.6	379.7	383.7	388.1
REVENUE SURPLUS	173.0	62.9	163.6	188.7	195.9	200.5

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TABLE 3.2.3-8 (CONTINUED)

PROJECTED BASELINE TOWN OF DIAMONDVILLE EXPENDITURES (IN THOUSANDS OF DOLLARS)

CATEGORY	1988	1989	1990	1995	2000
EXPENDITURES					
GENERAL FUND					
GENERAL GOVERNMENT	51.8	52.5	53.1	55.2	59.3
PUBLIC SAFETY	0.0	0.0	0.0	0.0	0.0
STREETS AND ALLEY	121.4	122.9	124.4	129.3	138.9
POLICE DEPARTMENT	53.9	54.5	55.2	57.4	61.7
POLICE JUDGE	1.5	1.5	1.5	1.6	1.7
CAPITAL IMPROVEMENTS	0.0	0.0	0.0	0.0	0.0
HEALTH AND SANITATION	0.0	0.0	0.0	0.0	0.0
DIAMONDVILLE PARK	0.0	0.0	0.0	0.0	0.0
EQUIPMENT NEEDS	20.0	20.0	20.0	20.0	20.0
PAVING & WATER (GRANT)	0.0	0.0	0.0	0.0	0.0
WATER	143.5	145.3	147.1	152.9	164.3
TOTAL EXPENDITURES	392.1	396.7	401.3	416.5	445.8
REVENUE SURPLUS	204.3	208.5	213.3	243.8	297.6

SOURCE: WESTERN RESEARCH CORPORATION; LARAMIE, WYOMING (1982).

facilities (jail and communications) in Kemmerer are used by Diamondville (Hatch 1982 personal communication). Diamondville is charged for the use of these county services. The town is in the process of purchasing a radio system for the police cars, street maintenance, and the town hall. This system will be used in conjunction with the sheriff's communication system.

Police Department needs are expected to increase with baseline population. There is a need for three sworn officers, one support staff, and one vehicle by 1995. These needs are expected to remain constant through 2000.

Fire Department

Diamondville, as well as the southern portion of Lincoln County, is served by the South Lincoln County Fire District located in Kemmerer. For a discussion of this see the section on Kemmerer's Fire Department.

Municipal Water System

Diamondville and Kemmerer have had an integrated water system until recently. Diamondville purchased its water distribution system from Kemmerer in 1981 (OIA 1982). Now Kemmerer provides treated water to Diamondville through a master meter. Diamondville, like Kemmerer, is in need of additional storage capacity. Diamondville has received a Farm Loan Board grant for a 500,000 gallon storage tank, feeder, and distribution lines. Diamondville is currently exploring alternative sources of water because of the expense involved in purchasing water from Kemmerer. For a discussion of future water demands see the section on Kemmerer's municipal water system.

Municipal Sewer System

Diamondville's sewage treatment plant is out of compliance with the Wyoming Department of Environmental Quality regulations (OIA 1982). The collection system is relatively new (approximately 5 years old) and serves 442 hookups (OIA 1982).

Plans call for the connection of the Diamondville collection system with Kemmerer's new sewage treatment plant. Negotiations are still taking place over the specific arrangement with Kemmerer. Once the Diamondville system is connected, the Kemmerer system will be operating at 80 percent of capacity (up from 60 percent of capacity) (Johnson 1982 personal communication). The new Kemmerer plant operates at a capacity of 1.45 MGD and has a peak capacity of 2.2 MGD. Projections of future needs are included under Kemmerer's municipal sewer system section. The lift station necessary for connection of the two sewer systems has already been installed.

Street Department

Three special improvement districts have been formed to pave the streets in Diamondville. At present, approximately two-thirds of the streets in town have been paved. The remaining one-third of the streets will be paved in the near future. The Street, Sewer and Water Departments are run by two full-time

employees (Harris 1982). The town is currently in need of a new dump truck/snowplow.

Diamondville will experience a slight increase in the Street Department's service demand to support baseline growth. However, the expected growth will not necessitate additional staff positions before 2000.

Solid Waste Disposal

Solid waste disposal is handled by a private contractor. The basic charge is $7.00/month for residential pick-up and $12.00/month for commercial pick-up. The county landfill site is used for dumping (see discussion under Lincoln County).

Parks and Recreation

Diamondville has one park which has picnic facilities and a ballfield. The park is one city block square. The town is interested in adding the following recreation facilities:

Skating rink,
Tennis courts, and
Additional picnic tables in the existing park (OIA 1982).

Although Diamondville has no staffed parks and recreation department, in 1985, 7.2 acres are needed to serve the projected population. By 1990, the need for park land increases to 7.7 acres and by 2000, to 8.5.

Town of LaBarge

The Town of LaBarge is located near the Sublette County line on Highway 189. This section discusses revenue and expenditure projections and the following public services in LaBarge: general administration, police, fire, municipal water, municipal sewer, street, solid waste, and parks and recreation.

Revenue and Expenditures

The Town of LaBarge's revenue has grown steadily in recent years from $83,800 in 1979 to $171,000 in 1982. Table 3.2.3-9 shows baseline revenue projections for LaBarge. Revenue items such as state funds and interest were not projected, since their continuation is uncertain. This accounts for smaller revenue totals for some projected years than for the base year, 1982. The large revenue total for 1983 is attributable to several large capital projects included in that year's budget. These projections indicate a steady increase in revenue through 2000, with revenue of over $200,000 projected for that year.

Table 3.2.3-10 shows projected baseline expenditures for LaBarge. Comparison of expenditure and revenue projections indicates that a small deficit is projected for 1983 and that steadily increasing surpluses are projected for all years from 1984 to 2000.

TABLE 3.2.3-9

PROJECTED BASELINE TOWN OF LABARGE REVENUE (IN THOUSANDS OF DOLLARS)

CATEGORY	1982	1983	1984	1985	1986	1987
ASSESSED VALUATION	712.9	706.7	715.0	723.2	731.5	739.8
--- REVENUE ---						
MUNICIPAL TAX	7.0	7.6	7.7	7.8	7.9	8.0
SALES AND USE TAX	44.0	41.9	42.3	42.9	43.4	44.0
OCCUPATIONAL TAX	.8	1.2	1.2	1.2	1.2	1.2
CIGARETTE TAX	3.0	3.9	3.9	4.0	4.0	4.1
GASOLINE TAX	9.0	11.8	12.0	12.1	12.2	12.4
MINERAL ROYALTIES	15.0	24.0	24.0	24.0	24.0	24.0
2% SEVERANCE TAX	33.0	33.0	31.4	34.0	35.9	37.1
LICENSES,FEES,AND FINES	4.6	7.1	7.2	7.2	7.3	7.4
INTEREST	2.0	3.6	0.0	0.0	0.0	0.0
REVENUE SHARING	2.5	0.0	0.0	0.0	0.0	0.0
STATE FUNDS	15.0	15.0	0.0	0.0	0.0	0.0
MISCELLANEOUS	10.0	10.3	10.4	10.5	10.6	10.7
WATER USER FEES	11.8	11.7	11.9	12.0	12.1	12.3
SEWER USER FEES	13.3	13.2	13.4	13.6	13.7	13.9
WATER/SEWER TAP FEES	0.0	1.2	1.2	.9	1.2	1.2
SPECIAL PROJECTS						
FARM HOME-WATER/SEWER	0.0	607.0	0.0	0.0	0.0	0.0
ADDITIONAL HOOKUP FEE	0.0	25.0	0.0	0.0	0.0	0.0
FARM HOME-R.BANK PROJ.	0.0	150.0	0.0	0.0	0.0	0.0
TOTAL REVENUE	171.0	967.5	166.5	170.2	173.7	176.2

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TABLE 3.2.3-9 (CONTINUED)

PROJECTED BASELINE TOWN OF LABARGE REVENUE (IN THOUSANDS OF DOLLARS)

CATEGORY	1988	1989	1990	1995	2000
ASSESSED VALUATION	750.1	758.4	766.6	797.6	857.5
--- REVENUE ---					
MUNICIPAL TAX	8.1	8.2	8.3	8.6	9.3
SALES AND USE TAX	44.6	45.2	45.8	47.7	51.9
OCCUPATIONAL TAX	1.2	1.2	1.3	1.3	1.4
CIGARETTE TAX	4.1	4.2	4.2	4.4	4.7
GASOLINE TAX	12.6	12.7	12.8	13.4	14.4
MINERAL ROYALTIES	24.0	24.0	24.0	24.0	24.0
2% SEVERANCE TAX	38.0	39.0	40.2	48.7	62.9
LICENSES,FEES,AND FINES	7.5	7.6	7.7	8.0	8.6
INTEREST	0.0	0.0	0.0	0.0	0.0
REVENUE SHARING	0.0	0.0	0.0	0.0	0.0
STATE FUNDS	0.0	0.0	0.0	0.0	0.0
MISCELLANEOUS	10.9	11.0	11.1	11.6	12.5
WATER USER FEES	12.5	12.6	12.7	13.2	14.2
SEWER USER FEES	14.1	14.2	14.4	14.9	16.1
WATER/SEWER TAP FEES SPECIAL PROJECTS	1.4	.9	0.0	0.0	0.0
FARM HOME-WATER/SEWER	0.0	0.0	0.0	0.0	0.0
ADDITIONAL HOOKUP FEE	0.0	0.0	0.0	0.0	0.0
FARM HOME-R.BANK PROJ.	0.0	0.0	0.0	0.0	0.0
TOTAL REVENUE	178.9	180.8	182.5	195.8	219.8

SOURCE: WESTERN RESEARCH CORPORATION; LARAMIE, WYOMING (1982).

TABLE 3.2.3-10

PROJECTED BASELINE TOWN OF LABARGE EXPENDITURES (IN THOUSANDS OF DOLLARS)

CATEGORY	1982	1983	1984	1985	1986	1987
--- EXPENDITURES ---						
GENERAL ADMINISTRATION						
OPERATING EXPENSES	57.6	57.1	57.7	58.4	59.1	59.8
FIRE DEPARTMENT						
OPERATING EXPENSES	7.0	6.9	7.0	7.1	7.2	7.3
CAPITAL FACILITIES	33.0	15.3	.0	.0	.0	.0
POLICE DEPARTMENT						
OPERATING EXPENSES	25.3	25.1	25.4	25.7	26.0	26.3
STREETS AND ALLEYS						
OPERATING EXPENSES	22.0	21.8	22.1	22.3	22.6	22.8
WATER AND SEWER FUND						
OPERATING EXPENSES	10.4	10.3	10.4	10.5	10.7	10.8
DEBT SERVICE	14.8	42.1	42.1	42.1	42.1	42.1
WATER/SEWER EXPANSION	0.0	641.0	0.0	0.0	0.0	0.0
RIVERBANK PROJECT	0.0	150.0	0.0	0.0	0.0	0.0
TOTAL EXPENDITURES	170.1	969.6	164.8	166.2	167.6	169.0
REVENUE SURPLUS	.9	-2.2	1.7	4.0	6.1	7.2

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TABLE 3.2.3-10 (CONTINUED)

PROJECTED BASELINE TOWN OF LABARGE EXPENDITURES (IN THOUSANDS OF DOLLARS)

CATEGORY	1988	1989	1990	1995	2000
--- EXPENDITURES ---					
GENERAL ADMINISTRATION					
OPERATING EXPENSES	60.6	61.3	61.9	64.4	69.3
FIRE DEPARTMENT					
OPERATING EXPENSES	7.4	7.5	7.5	7.8	8.4
CAPITAL FACILITIES	.0	.0	.0	.0	.0
POLICE DEPARTMENT					
OPERATING EXPENSES	26.6	26.9	27.2	28.3	30.5
STREETS AND ALLEYS					
OPERATING EXPENSES	23.2	23.4	23.7	24.6	26.5
WATER AND SEWER FUND					
OPERATING EXPENSES	10.9	11.0	11.2	11.6	12.5
DEBT SERVICE	42.1	42.1	42.1	42.1	42.1
WATER/SEWER EXPANSION	0.0	0.0	0.0	0.0	0.0
RIVERBANK PROJECT	0.0	0.0	0.0	0.0	0.0
TOTAL EXPENDITURES	170.8	172.2	173.6	178.9	189.2
REVENUE SURPLUS	8.1	8.6	8.9	16.9	30.6

SOURCE: WESTERN RESEARCH CORPORATION; LARAMIE, WYOMING (1982).

LaBarge currently has a sewer revenue bond with $61,000 outstanding. General obligation water bonds issued in 1977 have a remaining balance of $120,000. Neither of these bonds affect the general obligation bonding capacity for the town. The current bonding capacity is about $28,000. This capacity can be expected to increase with assessed valuation. (Capacity is calculated at 4 percent of assessed valuation.)

General Administration

LaBarge is a small town with limited public services. The general administration of the town is handled by one individual (Snively 1982). The LaBarge Town Hall is only three years old (Hacklin 1982).

Projections of the baseline population demand on general administration in LaBarge indicates that the demand remains constant.

Police Department

LaBarge has one police officer, one part-time officer, and one police car. The town has no jail but uses the county facilities located in Kemmerer. At present the town would like to add one additional half-time officer to the force.

The baseline needs for LaBarge in terms of law enforcement include one part-time sworn officer and one vehicle. By 2000 the needs are for one officer, a part-time support staff position, and one vehicle. Caution should be used, however, in interpreting this information. Because of the small population, problems arise when using law enforcement standards. Hiring half-time officers may be difficult. The need for a relief officer may not be met using the standards presented in the appendix. Thus when populations are small the interpretation and use of standards should proceed with caution.

Fire Department

The Town of LaBarge is served by a volunteer fire department consisting of 10 volunteers. There will be a slight need for additional volunteers with baseline growth. Specifically, there will be a need for 11 volunteers in 1990 and 12 by 2000.

Municipal Water System

The Town of LaBarge obtains its water from the Green River. The current capacity of the system is 123,000 gallons per day. The water treatment plant filters and chlorinates the water. The town has one 100,000 gallon storage tank and services 150 taps. The town has also applied to the Farm Loan Board for a grant to install an additional storage tank (500,000 gallon), and to add an additional distribution main (Hacklin 1982).

Current water supply is adequate to meet future baseline needs. Table 3.2.3-11 shows the 1990 demand for water at 0.074 million gallons per day (74,000 gallons/day). In 2000 this demand is expected to be 0.083 million gallons per day (83,000 gallons/day).

TABLE 3.2.3-11

PROJECTED BASELINE REQUIREMENTS FOR LABARGE WATER SYSTEM[1]

Category	Presently Available[2]	Adequate for 1982	1983	1984	1985	1986	1987	1988	1989	1990	1995	2000
Capacity (million gallons/ day)	.123	.069	.068	.069	.070	.071	.072	.073	.073	.074	.077	.083

Source: Western Research Corporation; Laramie, Wyoming, 1982.

[1]Projected water system requirements based on an assumed annual average daily use rate of 200 gallons per person (see Appendix A).

[2]Personal conversation with Dennis Hacklin, Mayor, LaBarge, September, 1982.

Municipal Sewer System

LaBarge operates a three-cell lagoon type sewage treatment system with two aerated cells. The current system is estimated to serve a capacity of 400 users (OIA 1982). Currently the system serves 150 residential and 10 commercial users.

The town has requested money from the Farm Loan Board to improve both the water and sewer system ($306,000 grant and $307,000 loan). With this money the sewer system would be expanded to serve a population of 1,700. Because of the planned additions to the sewer system, no projections of needs are made.

Street Department

LaBarge is located on Highway 189. Side streets off of the highway are not paved. No street department, per se, exists in LaBarge. Any work needed is contracted out to local contractors. For this reason no projections of needs are made. The town does have a general maintenance man and a pickup truck with a snowplow and pest control fogger (Hacklin 1982).

Solid Waste Disposal

Solid waste disposal is handled by a private contractor and it is therefore assumed that service will expand to meet increased population demand.

Parks and Recreation

At present the park and playground in LaBarge are provided by the American Legion. The town is working on an arrangement with the local school board to develop a 100,000 square foot park which would include basketball courts and picnic facilities (OIA 1982).

Because no parks and recreation department exists in LaBarge, no projections are made.

Town of Opal

Opal is located approximately 13 miles east of Diamondville and Kemmerer. The small town has only recently been reincorporated and thus lacks many public services. The following will be discussed in reference to public services in Opal: revenue and expenditures, general administration, water, municipal sewer, street, solid waste, and parks and recreation. Because Opal was not incorporated as a town in 1980, census population numbers for Opal are unavailable. Although census population numbers are unavailable, the 1980 population has been estimated at about 100. Because Opal provides practically no public services, projections on needed expansion in each area are not provided.

Revenue and Expenditures

Revenue and expenditures are not presented since the town had not produced a budget at the time of this study.

General Administration

Opal has only one person responsible for the general administration of the town. This person is the Clerk-Treasurer for the town.

Police Department

The Town of Opal has no police chief at present (Wyoming Association of Municipalities 1982). The lack of law enforcement personnel is of concern to the town and a priority (Calhoun 1982).

Fire Department

The Town of Opal is served by the newly formed South Lincoln County Fire District which operates out of Kemmerer. Equipment and personnel are discussed under Kemmerer's Fire Department.

Municipal Water System

Opal has no municipal water system. Water is provided by a private firm, Opal Limited (OIA 1981). Opal has received a $6,000 matching grant from the Farm Loan Board to study the water and sewer systems (Calhoun 1982 personal communication).

Municipal Sewer System

Opal has no municipal sewer system. Sewage disposal is also provided by the private firm Opal Limited. The treatment system has a 20,000 gallon per day capacity. Opal Limited has applied for a permit to construct an aeration pond to be used when capacity of the existing system is reached (OIA 1982).

Street Department

Opal has no street department or equipment and provides no services in this area.

Solid Waste Disposal

Opal provides no solid waste disposal for its residents.

Parks and Recreation

The Town of Opal provides no parks and recreation facilities or programs.

Lincoln County School District #1

Revenue and Expenditures

Revenue for Lincoln County School District #1 can be expected to continue to increase through this decade. As indicated by Table 3.2.3-12, current revenue is at $5,781,400. The largest single source of this revenue is property tax.

TABLE 3.2.3-12

PROJECTED BASELINE LINCOLN SCHOOL DIST. #1 REVENUE (IN THOUSANDS OF DOLLARS)

CATEGORY	1982	1983	1984	1985	1986	1987
--- REVENUE ---						
LOCAL DISTRICT REVENUE						
PROPERTY TAXES	3280.6	4247.2	4568.4	5122.6	5920.1	6491.8
OTHER LOCAL REVENUE	218.0	222.1	220.0	222.3	225.0	227.7
COUNTY REVENUE						
COUNTY TAXES	777.4	991.6	1074.9	1205.3	1393.0	1527.5
OTHER COUNTY REVENUE	80.7	82.1	81.4	82.2	83.2	84.2
STATE REVENUE						
SCHOOL FOUNDATION	0.0	0.0	0.0	0.0	0.0	0.0
LAND INCOME	229.4	229.4	229.4	229.4	229.4	229.4
OTHER STATE REVENUE	.2	.2	.2	.2	.2	.2
FEDERAL REVENUE						
PUBLIC LAW 874	0.0	0.0	0.0	0.0	0.0	0.0
JOHNSON-OMALLEY	0.0	0.0	0.0	0.0	0.0	0.0
OTHER FEDERAL	2.0	0.0	0.0	0.0	0.0	0.0
CASH ON HAND	1193.1	1640.2	0.0	0.0	0.0	0.0
TOTAL REVENUE	5781.4	7412.8	6174.3	6862.1	7850.9	8560.8

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TABLE 3.2.3-12 (CONTINUED)

PROJECTED BASELINE LINCOLN SCHOOL DIST. #1 REVENUE (IN THOUSANDS OF DOLLARS)

CATEGORY	1988	1989	1990	1995	2000
--- REVENUE ---					
LOCAL DISTRICT REVENUE					
PROPERTY TAXES	6668.5	7036.6	7432.0	7478.6	7562.5
OTHER LOCAL REVENUE	230.4	233.1	235.8	245.4	262.8
COUNTY REVENUE					
COUNTY TAXES	1569.1	1655.7	1748.7	1759.7	1779.4
OTHER COUNTY REVENUE	85.2	86.2	87.2	90.7	97.2
STATE REVENUE					
SCHOOL FOUNDATION	0.0	0.0	0.0	0.0	0.0
LAND INCOME	229.4	229.4	229.4	229.4	229.4
OTHER STATE REVENUE	.2	.2	.2	.2	.2
FEDERAL REVENUE					
PUBLIC LAW 874	0.0	0.0	0.0	0.0	0.0
JOHNSON-OMALLEY	0.0	0.0	0.0	0.0	0.0
OTHER FEDERAL	0.0	0.0	0.0	0.0	0.0
CASH ON HAND	0.0	0.0	0.0	0.0	0.0
TOTAL REVENUE	8782.7	9241.1	9733.2	9803.9	9931.6

SOURCE: WESTERN RESEARCH CORPORATION; LARAMIE, WYOMING (1982).

The largest source of increase in property tax is expected to be increases in assessed valuation based on increases in mineral production.

Table 3.2.3-13 shows projected expenditures for Lincoln County School District #1 and the expected revenue surplus (revenue minus expenditures). As can be noted, the school district is projected to be in an excellent fiscal position. A cautionary point needs to be made in reference to school district financing in Wyoming. Current laws are in the process of being changed to equalize school districts across the state. Equalization will have a negative effect on Lincoln County's fiscal situation.

Under Wyoming law, school districts can, with approval of the voters, issue general obligation bonds for construction of new facilities. The limit on this bonding capacity is equal to 10 percent of the assessed valuation of the school district. While Lincoln County School District #1 currently has outstanding bonds, the district still has in excess of $6 million in bonding capacity.

Lincoln County School District #1 essentially serves the south and southeastern portion of Lincoln County. This includes the communities of Kemmerer, Diamondville, and Opal. LaBarge, although in Lincoln County, is served by School District #9 in Sublette County.

The school district currently has an enrollment of 1,137 students. Of these, 739 are in kindergarten through sixth grade (K-6) and 398 are in grades 7-12 (Mowry 1982, personal conversation). Current student capacity is 800 for grades K-6 and 700 for grades 7-12. As indicated by the above numbers, grades K-6 are at 92 percent of capacity; grades 7-12 are at 57 percent of capacity.

Because the grade schools are nearing capacity, a new grade school will be needed in the near future. Current school district plans call for the addition of space for 450 students (K-6). The construction has begun and is planned for completion in January, 1984.

The school district also has available 4 temporary classrooms, 1 of which is in use at present. The capacity of each is 25 students. These temporary classrooms will be taken out of service when the new construction is complete. Capacities discussed above do not include temporary classroom capacities.

Tables 3.2.3-14 and 3.2.3-15 also show the projected needs for School District #1 based on current personnel-to-student and classroom-to-student ratios. A 20 percent increase in enrollment is expected from 1982 to 2000 without the Riley Ridge Project. This means an average annual increase of 1.0 percent per year. The school district is in good shape to handle such growth with existing facilities and those under construction. Additional teachers will be needed, however, to meet the anticipated increased demand.

Sublette County

Pinedale, located in north central Sublette County, is the county seat. Big Piney and Marbleton, located in the south central portion of the county, are

TABLE 3.2.3-13

PROJECTED BASELINE LINCOLN SCHOOL DIST. #1 EXPENDITURES (IN THOUSANDS OF DOLLARS)

CATEGORY	1982	1983	1984	1985	1986	1987
--- EXPENDITURES ---						
INSTRUCTION	2031.0	2071.0	2051.3	2072.8	2097.9	2122.9
INSTRUCTION SUPPORT	386.3	393.4	389.6	393.7	398.5	403.2
GENERAL SUPPORT	1288.5	1310.9	1298.4	1312.0	1327.9	1343.7
COMMMUNITY SUPPORT	28.1	28.9	28.7	29.0	29.3	29.7
CAPITAL OUTLAY	407.4	835.0	0.0	0.0	0.0	0.0
TOTAL EXPENDITURES	4141.2	4639.2	3768.0	3807.5	3853.5	3899.6
REVENUE SURPLUS	1640.2	2773.6	2406.3	3054.6	3997.4	4661.2

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TABLE 3.2.3-13 (CONTINUED)

PROJECTED BASELINE LINCOLN SCHOOL DIST. #1 EXPENDITURES (IN THOUSANDS OF DOLLARS)

CATEGORY	1988	1989	1990	1995	2000
--- EXPENDITURES ---					
INSTRUCTION	2148.0	2173.1	2198.1	2287.6	2450.5
INSTRUCTION SUPPORT	403.0	412.8	417.5	434.5	465.5
GENERAL SUPPORT	1359.6	1375.5	1391.3	1448.0	1551.1
COMMUNITY SUPPORT	30.0	30.4	30.7	32.0	34.2
CAPITAL OUTLAY	0.0	0.0	0.0	0.0	0.0
TOTAL EXPENDITURES	3945.6	3991.6	4037.7	4202.1	4501.3
REVENUE SURPLUS	4837.1	5249.5	5695.6	5601.8	5430.3

SOURCE: WESTERN RESEARCH CORPORATION; LARAMIE, WYOMING (1982).

TABLE 3.2.3-14

BASELINE ENROLLMENT PROJECTIONS FOR LINCOLN COUNTY SCHOOL DISTRICT #1

Category	82-83	83-84	84-85	85-86	86-87	87-88	88-89	89-90	94-95	99-00
K-6	739	748	756	766	774	783	792	802	835	894
7-12	398	398	402	406	412	417	422	426	443	475
Total Enrollments	1,137	1,146	1,158	1,172	1,186	1,200	1,214	1,228	1,278	1,369

Source: Western Research Corporation; Laramie, Wyoming (1982).

TABLE 3.2.3-15

BASELINE CLASSROOM AND TEACHER NEEDS[1] FOR LINCOLN COUNTY SCHOOL DISTRICT #1

Category	82-83	83-84	84-85	85-86	86-87	87-88	88-89	89-90	94-95	99-00
Classroom Needs										
K-6	30	30	31	31	31	32	32	33	34	36
7-12	33	33	34	34	34	35	35	36	37	40
Total	63	63	65	65	65	67	67	69	71	76
Teacher Needs										
K-6	30	30	31	31	31	32	32	33	34	36
7-12	30	30	30	31	31	31	32	32	33	36
Total	60	60	61	62	62	63	64	65	67	72
Support Staff	2	2	2	2	2	2	2	2	2	2

Source: Western Research Corporation; Laramie, Wyoming (1982).

[1]Projections are based on the enrollment projections in the previous table as well as the following assumed ratios: 24.6 elementary students per room; 12 secondary students per room; one teacher per every 24.6 elementary students; one teacher per every 13.27 secondary students; and 1.76 support staff per 1,000 students.

the other two incorporated towns in the county. Unincorporated communities within the county are Bondurant, Boulder, Cora, Daniel, and TipTop.

Sublette County revenue and expenditure projections are reviewed in this section. Sublette County services also discussed in this section include general administration, law enforcement, road and bridge maintenance, recreation, and library services.

Revenue and Expenditures

Sublette County revenue has increased over the last few years. Property taxes, sales and use taxes, interest on the general fund, and in lieu of taxes payments account for the bulk of revenue. Mineral severance revenue has shown a notable increase over the last few years (Sublette County Budget FY83).

A relatively large proportion of expenditures are accounted for by the Road and Bridge Department as well as the law enforcement-judicial area. Large increases in these same two areas can be seen over the past several years.

The county's current assessed valuation is almost $156 million. A levy of 7.7 mills is in effect to raise the required amount of taxes to finance the budget (Sublette County FY83). Sublette County currently has a general obligation bonding limit of slightly more than $3 million, with no outstanding general obligation bonds.

Projected revenue and expenditure patterns for Sublette County without the Riley Ridge project are presented in Tables 3.2.3-16 and 3.2.3-17. Revenue surpluses are expected throughout the forecast period without the Riley Ridge Project. Expenditures are expected to remain relatively constant; however, no new capital expenditures were included in the projections. While the county undoubtedly will have some new capital expenditures, the county should have adequate revenue to pay for such facilities.

General Administration

Sublette County offices and court facilities are located in the County Building in Pinedale. The general administrative staff of Sublette County totals 14 full-time-equivalent employees. Included are the county clerk's office with 4 employees (including the clerk), the treasurer's office with 3 employees (including the treasurer), the assessor's office with 3 employees (including the assessor), the court clerk's office with 2 employees, and the Planning and Zoning Department with 2 employees.

The County Building is older than most buildings in the county yet is in relatively good condition. Office space for county administrative staff has become somewhat cramped in recent years due to the increase in the size of the administrative staff. A bond issue for a new county building was defeated by the voters in 1982.

Projected growth without the Riley Ridge Project would not require any additional positions on the general administration staff through the year 2000.

TABLE 3.2.3-16

PROJECTED BASELINE SUBLETTE COUNTY REVENUE (IN THOUSANDS OF DOLLARS)

CATEGORY	1982	1983	1984	1985	1986	1987
ASSESSED VALUATION	123141.1	155745.5	165903.0	186798.0	219923.0	242194.0
GENERAL FUND						
SALES TAX - 3 PCT	285.5	285.1	278.8	281.0	283.0	284.8
USE TAX - 3 PCT	27.5	27.5	26.9	27.1	27.3	27.4
USE TAX OUT STATE	31.0	30.9	30.3	30.5	30.7	30.9
GASOLINE TAX	117.2	118.7	117.2	118.2	119.0	119.8
CIGARETTE TAX	2.9	2.9	2.9	2.9	3.0	3.0
PROPERTY TAX	673.7	1199.2	1277.5	1438.3	1693.4	1864.9
SUBTOTAL-TAX REVENUE	1137.8	1664.5	1733.5	1898.1	2156.4	2330.9
OTHER GENERAL FUND REVENUE						
LICENSES,FEES,FINES	82.7	83.7	82.7	83.3	83.9	84.5
MISCELLANEOUS	3.7	3.7	3.7	3.7	3.7	3.7
RURAL ADDRESSING	0.0	12.0	0.0	0.0	0.0	0.0
INTEREST GEN FND	248.2	248.2	248.2	248.2	248.2	248.2
STATE/CNTY (WATER COMM)	0.0	19.3	19.3	19.3	19.3	19.3
STATE-CTY ATTY SALARY	0.0	10.0	10.0	10.0	10.0	10.0
MINERAL SEVERANCE TAX	97.3	107.5	112.7	122.3	129.2	133.4
FOREST RESERVE	74.2	74.2	74.2	74.2	74.2	74.2
CASH BALANCE	500.0	0.0	0.0	0.0	0.0	0.0
IN LIEU OF TAXES	227.4	227.4	227.4	227.4	227.4	227.4
REVENUE SHARING	50.7	0.0	0.0	0.0	0.0	0.0
SUBTOTAL-OTHER GEN FUND	1284.2	786.0	778.2	788.4	795.9	800.7
TOTAL REVENUE	2422.0	2450.5	2511.7	2686.5	2952.3	3131.6

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TABLE 3.2.3-16 (CONTINUED)

PROJECTED BASELINE SUBLETTE COUNTY REVENUE (IN THOUSANDS OF DOLLARS)

CATEGORY	1988	1989	1990	1995	2000
ASSESSED VALUATION	257441.0	296039.0	344519.0	344112.0	345308.0
GENERAL FUND					
SALES TAX - 3 PCT	278.6	267.7	273.9	257.8	269.7
USE TAX - 3 PCT	26.8	25.8	26.4	24.8	26.0
USE TAX OUT STATE	30.2	29.1	29.7	28.0	29.3
GASOLINE TAX	118.4	115.7	117.1	114.8	119.8
CIGARETTE TAX	2.9	2.9	2.9	2.9	3.0
PROPERTY TAX	1982.3	2279.5	2652.8	2649.7	2658.9
SUBTOTAL-TAX REVENUE	2439.3	2720.6	3102.9	3078.0	3106.6
OTHER GENERAL FUND REVENUE					
LICENSES,FEES,FINES	83.5	81.6	82.6	81.0	84.5
MISCELLANEOUS	3.7	3.7	3.7	3.7	3.7
RURAL ADDRESSING	0.0	0.0	0.0	0.0	0.0
INTEREST GEN FND	248.2	248.2	248.2	248.2	248.2
STATE/CNTY (WATER COMM)	19.3	19.3	19.3	19.3	19.3
STATE-CTY ATTY SALARY	10.0	10.0	10.0	10.0	10.0
MINERAL SEVERANCE TAX	136.6	140.3	144.5	175.1	225.8
FOREST RESERVE	74.2	74.2	74.2	74.2	74.2
CASH BALANCE	0.0	0.0	0.0	0.0	0.0
IN LIEU OF TAXES	227.4	227.4	227.4	227.4	227.4
REVENUE SHARING	0.0	0.0	0.0	0.0	0.0
SUBTOTAL-OTHER GEN FUND	802.9	804.7	809.9	838.9	893.1
TOTAL REVENUE	3242.2	3525.3	3912.8	3916.9	3999.7

SOURCE: WESTERN RESEARCH CORPORATION; LARAMIE, WYOMING (1982).

TABLE 3.2.3-17

PROJECTED BASELINE SUBLETTE COUNTY EXPENDITURES (IN THOUSANDS OF DOLLARS)

CATEGORY	1982	1983	1984	1985	1986	1987
GENERAL FUND						
GEN ADMINISTRATION	359.5	364.1	359.6	362.4	365.0	367.5
LAW ENFORCE-JUDICIAL	411.3	416.6	411.4	414.6	417.6	420.4
ROAD AND BRIDGE	583.8	591.2	583.9	588.4	592.7	596.7
REVENUE SHARING	119.3	0.0	0.0	0.0	0.0	0.0
CASH RESERVE,SHRINK,DEPR	0.0	140.0	140.0	140.0	140.0	140.0
OTHER GENERAL ACCTS	288.5	292.2	288.6	290.8	292.9	294.9
SUBTOTAL GEN. FUND EXP.	1762.4	1804.1	1783.4	1796.2	1808.2	1819.6
CAPITAL FACILITIES						
NEW CAPITAL FACILITIES	0.0	0.0	0.0	0.0	0.0	0.0
COUNTY SERVICES						
FAIR	75.9	76.9	75.9	76.5	77.1	77.6
AIRPORT	50.5	51.1	50.5	50.9	51.2	51.6
HOSPITAL	338.9	343.2	339.0	341.6	344.1	346.4
LIBRARY	121.5	123.1	121.5	122.5	123.4	124.2
SPECIAL FIRE	59.4	60.2	59.4	59.9	60.3	60.7
TOTAL COUNTY SERVICES	646.2	654.4	646.3	651.3	656.1	660.5
TOTAL EXPENDITURES	2403.6	2458.5	2429.7	2447.5	2464.3	2480.1
REVENUE SURPLUS	0.0	-8.0	81.9	239.0	488.0	651.5

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TABLE 3.2.3-17 (CONTINUED)

PROJECTED BASELINE SUBLETTE COUNTY EXPENDITURES (IN THOUSANDS OF DOLLARS)

CATEGORY	1988	1989	1990	1995	2000
GENERAL FUND					
GEN ADMINISTRATION	363.0	354.7	359.3	352.2	367.4
LAW ENFORCE-JUDICIAL	415.4	405.9	411.0	402.9	420.4
ROAD AND BRIDGE	589.5	576.1	583.4	571.9	596.6
REVENUE SHARING	0.0	0.0	0.0	0.0	0.0
CASH RESERVE,SHRINK,DEPR	140.0	140.0	140.0	140.0	140.0
OTHER GENERAL ACCTS	291.3	284.7	288.3	282.6	294.9
SUBTOTAL GEN. FUND EXP.	1799.3	1761.4	1782.1	1749.7	1819.2
CAPITAL FACILITIES					
NEW CAPITAL FACILITIES	0.0	0.0	0.0	0.0	0.0
COUNTY SERVICES					
FAIR	76.7	74.9	75.9	74.4	77.6
AIRPORT	51.0	49.8	50.4	49.5	51.6
HOSPITAL	342.2	334.4	338.7	332.0	346.3
LIBRARY	122.7	119.9	121.4	119.0	124.2
SPECIAL FIRE	60.0	58.6	59.4	58.2	60.7
TOTAL COUNTY SERVICES	652.5	637.7	645.8	633.0	660.4
TOTAL EXPENDITURES	2451.8	2399.0	2427.8	2382.7	2479.7
REVENUE SURPLUS	790.4	1126.2	1485.0	1534.1	1520.1

SOURCE: WESTERN RESEARCH CORPORATION; LARAMIE, WYOMING (1982).

Sheriff's Department

The Sublette County Sheriff's Department is staffed by the sheriff, eight full-time-equivalent sworn deputies and six support personnel.

The Sheriff's Department is housed in a relatively new county law enforcement complex that was constructed in 1976. This complex contains seven jail cells, offices, and a communications center. County staff provide communications services for all county and town law enforcement.

Projected needs for the Sublette County Sheriff's Department indicate that the current number of personnel should be sufficient through the year 2000.

Road and Bridge Department

The Sublette County Road and Bridge Department has the responsibility for the maintenance of all county roads and bridges, a limited amount of resurfacing, snow removal, minor construction, minor earthmoving projects, and the operation of the county landfill.

The Road and Bridge Department has a staff of 11 men. The Road and Bridge Department currently has available a fleet of equipment which includes 9 pickup trucks, 6 trailers, and 15 pieces of heavy equipment such as loaders, caterpillars, tractors, scrapers, dumptrucks, and backhoes.

Projected requirements for the county Road and Bridge Department for the baseline indicate that the current staff will be adequate through 2000 without the Riley Ridge Project.

Fire Department

Sublette County provides fire protection to county residents through financial support of the Pinedale and Big Piney municipal fire departments in return for the provision of services to county residents.

Library

The Sublette County Library is located in Pinedale with branches in Big Piney and Bondurant. The total holdings of the library amount to slightly more than 25,000 volumes. The library staff consists of 2 librarians, 3 clerks, and 3 custodians.

The main library in Pinedale will be opening a new reading room in September of 1982. The branch in Big Piney is generally adequate, but some residents have expressed a need for a meeting room. The branch in Bondurant is adequate.

Projected baseline needs for the Sublette County Library are presented in Table 3.2.3-18. This table demonstrates that the number of volumes presently available exceeds the number recommended by the Public Library Association and that additional volumes will not be needed without the Riley Ridge Project. The number of clerks presently available will not need to be increased without

TABLE 3.2.3-18

PROJECTED BASELINE REQUIREMENTS FOR SUBLETTE COUNTY LIBRARY

Category	Presently Available[1]	1982	1983	Adequate for[2] 1984	1985	1986
Volumes	25,000	15,000	15,000	15,000	15,000	15,000
Librarians	2	3	3	3	3	3
Clerks	3	1	1	1	1	1

Category	1987	1988	1989	Adequate for[2] 1990	1995	2000
Volumes	15,000	15,000	15,000	15,000	15,000	15,000
Librarians	3	3	3	3	3	3
Clerks	1	1	1	1	1	1

Source: Western Research Corporation; Laramie, Wyoming, 1982.

[1]Personal conversation with Mrs. Dauphne Platts, 1982.

[2]Projections based on the following ratios: 15,000 volumes for the first 5,000 people plus 2 volumes per capita for population over 5,000; 0.67 librarians per 1,000 population; and one clerk for every 4 librarians (see Appendix A).

the Riley Ridge Project. The number of librarians presently available does not meet the Public Library Association standards. Once the standard is attained, no additions will be needed before 2000 without the Riley Ridge Project.

Recreation

Sublette County does not maintain any recreation areas, although there are numerous federal recreation areas within the county. Table 3.2.3-19 presents projected need for recreational acres in Sublette County without the Riley Ridge Project. Applying accepted standards for recreational space indicates a projected need of approximately 30 acres through the forecast period.

Solid Waste

Sublette County maintains one landfill at Daniel and another Boulder. The Daniel site encompasses a total of 40 acres with a total of 4.5 acres used to date since the site was opened in 1971. The Boulder site contains 20 acres of which about 0.25 acre has been used since it opened in 1980. There are about 55.5 remaining available acres in the two sites.

Without the Riley Ridge Project, the cumulative projected landfill needs will not exceed the number of acres presently available throughout the forecast period. By 1985, a total of 2.2 acres will have been used and by 1990, a cumulative total of 5.8 acres will have been required. Total landfill space required under the baseline from the present until the year 2000 will amount to 13 acres.

Big Piney

This section describes existing public services and facilities and the projected baseline needs through 2000.

Revenue and Expenditures

Revenue projections for Big Piney, Table 3.2.3-20, reflect that, similar to most Wyoming municipalities, the town receives the majority of its operating revenue from sales and use taxes, mineral royalty payments, and severance tax payments.

Expenditure projections (Table 3.2.3-21) indicate the town has to expend almost all revenue to meet operating costs. The town should have adequate revenue so long as it does not have to incur any major capital expenditures.

At the current assessed valuation of $1,145,507 for Big Piney, the general obligation bonding capacity is $45,000. At present, Big Piney has no general obligation debt.

General Administration

The general administration duties in Big Piney are the responsibility of a staff of one. The town hall is considered to be generally adequate.

In the absence of the Riley Ridge Project no additions to the administrative staff would be necessary during the forecast period.

Police Department

In the Town of Big Piney, law enforcement responsibilities are attended to by a police chief and two sworn officers. Communications are provided by the Sublette County Sheriff's Office in Pinedale, as are jail facilities. The Big Piney Police Department has two police vehicles. At present the department has no support staff and does not provide 24-hour coverage. The Chief of Police anticipates that when the department expands to provide 24-hour coverage, five officers and at least a part-time support position will be needed.

TABLE 3.2.3-19

PROJECTED BASELINE REQUIREMENTS FOR SUBLETTE COUNTY RECREATION

Category	Presently Available[1]	Adequate for[2] 1982	1983	1984	1985	1986	1987	1988	1989	1990	1995	2000
Acres	0	29.6	30.0	29.6	29.8	30.0	30.2	29.9	29.2	29.6	29.0	30.2

Source: Western Research Corporation; Laramie, Wyoming, 1982.

[1]Personal conversation with Mr. Bill Alexander, 1982.

[2]Based on the standard of 6.2 acres per 1,000 population (see Appendix A).

TABLE 3.2.3-20

PROJECTED BASELINE TOWN OF BIG PINEY REVENUE (IN THOUSANDS OF DOLLARS)

CATEGORY	1982	1983	1984	1985	1986	1987
ASSESSED VALUATION	1026.7	1145.5	1131.3	1141.4	1149.6	1157.7
TAX REVENUE						
SALES TAX - 3 PCT	74.5	74.4	72.8	73.3	73.9	74.3
USE TAX - 3 PCT	7.2	7.3	7.1	7.2	7.2	7.3
OUT OF STATE USE	8.1	8.0	7.8	7.9	7.9	8.0
PROPERTY TAXES	8.0	9.2	9.1	9.1	9.2	9.3
CIGARETTE TAX	15.0	15.2	15.0	15.1	15.2	15.4
GAS TAX	9.8	9.9	9.8	9.9	10.0	10.0
OCCUPATION TAX	2.5	2.5	2.5	2.5	2.5	2.6
SUBTOTAL TAX REVENUE	125.1	126.5	124.1	125.1	126.0	126.8
LICENSES, FINES, PERMITS	63.4	64.2	63.4	64.0	64.4	64.9
MINERAL ROYALTIES	57.9	57.9	57.9	57.9	57.9	57.9
SEVERANCE TAX	48.1	53.2	55.8	60.5	63.9	66.0
AIRPORT BOARD	1.0	1.0	1.0	1.0	1.0	1.0
SEWER AND WATER FEES	83.0	84.0	83.0	83.7	84.3	84.9
LANDFILL FEES	17.7	17.9	17.7	17.9	18.0	18.1
COUNTY HOSPT (AMBUL)	.7	.7	.7	.7	.7	.7
FRANCHISE	1.5	1.5	1.5	1.5	1.5	1.5
MISCELLANEOUS	5.9	.3	.3	.3	.3	.3
FIRE SERVICES (MARBLETON)	0.0	10.0	10.0	10.0	10.0	10.0
CASH ON HAND	42.9	0.0	0.0	0.0	0.0	0.0
COUNTY FIRE FUND	20.0	20.3	20.0	20.2	20.3	20.5
COUNTY GENERAL FUND	8.0	7.9	7.8	7.9	7.9	8.0
COUNTY AIRPORT BD	0.0	27.0	27.0	27.0	27.0	27.0
SUBTOTAL OTHER GENERAL FUND	350.1	345.9	346.1	352.5	357.3	360.8
TOTAL REVENUE	475.2	472.5	470.1	477.6	483.3	487.6

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TABLE 3.2.3-20 (CONTINUED)

PROJECTED BASELINE TOWN OF BIG PINEY REVENUE (IN THOUSANDS OF DOLLARS)

CATEGORY	1988	1989	1990	1995	2000
ASSESSED VALUATION	1143.5	1117.0	1131.3	1108.9	1157.7
TAX REVENUE					
SALES TAX - 3 PCT	72.7	69.9	71.5	67.3	70.4
USE TAX - 3 PCT	7.1	6.9	7.0	6.6	6.9
OUT OF STATE USE	7.8	7.5	7.7	7.2	7.6
PROPERTY TAXES	9.1	8.9	9.1	8.9	9.3
CIGARETTE TAX	15.2	14.8	15.0	14.7	15.4
GAS TAX	9.9	9.7	9.8	9.6	10.0
OCCUPATION TAX	2.5	2.5	2.5	2.5	2.6
SUBTOTAL TAX REVENUE	124.4	120.1	122.5	116.7	122.1
LICENSES, FINES, PERMITS	64.1	62.6	63.4	62.1	64.9
MINERAL ROYALTIES	57.9	57.9	57.9	57.9	57.9
SEVERANCE TAX	67.6	69.4	71.5	86.7	111.7
AIRPORT BOARD	1.0	1.0	1.0	1.0	1.0
SEWER AND WATER FEES	83.9	82.0	83.0	81.4	84.9
LANDFILL FEES	17.9	17.5	17.7	17.3	18.1
COUNTY HOSPT (AMBUL)	.7	.7	.7	.7	.7
FRANCHISE	1.5	1.5	1.5	1.5	1.5
MISCELLANEOUS	.3	.3	.3	.3	.3
FIRE SERVICES (MARBLETON)	10.0	10.0	10.0	10.0	10.0
CASH ON HAND	0.0	0.0	0.0	0.0	0.0
COUNTY FIRE FUND	20.2	19.7	20.0	19.6	20.5
COUNTY GENERAL FUND	7.9	7.7	7.8	7.6	8.0
COUNTY AIRPORT BD	27.0	27.0	27.0	27.0	27.0
SUBTOTAL OTHER GENERAL FUND	360.0	357.2	361.8	373.1	406.5
TOTAL REVENUE	484.4	477.4	484.3	489.9	528.6

SOURCE: WESTERN RESEARCH CORPORATION; LARAMIE, WYOMING (1982).

TABLE 3.2.3-21

PROJECTED BASELINE TOWN OF BIG PINEY EXPENDITURES (IN THOUSANDS OF DOLLARS)

CATEGORY	1982	1983	1984	1985	1986	1987
GENERAL FUND	91.9	93.1	91.9	92.7	93.4	94.1
STREET DEPARTMENT	111.5	112.9	111.5	112.5	113.3	114.1
FIRE DEPARTMENT	37.2	37.7	37.2	37.5	37.8	38.1
POLICE DEPARTMENT	113.2	114.6	113.2	114.2	115.0	115.8
WATER DEPARTMENT	47.4	48.0	47.4	47.8	48.2	48.5
LANDFILL	24.5	24.8	24.5	24.7	24.9	25.1
AIRPORT BOARD	6.0	6.1	6.0	6.1	6.1	6.1
SEWER DEPARTMENT	36.5	36.0	35.6	35.9	36.2	36.4
TOTAL EXPENDITURES	468.2	473.2	467.3	471.5	474.9	478.2
REVENUE SURPLUS	0.0	-.7	2.8	6.1	8.4	9.4

(CONTINUED ON NEXT PAGE)

TABLE 3.2.3-21 (CONTINUED)

PROJECTED BASELINE TOWN OF BIG PINEY EXPENDITURES (IN THOUSANDS OF DOLLARS)

CATEGORY	1988	1989	1990	1995	2000
GENERAL FUND	92.9	90.7	91.9	90.1	94.1
STREET DEPARTMENT	112.7	110.1	111.5	109.3	114.1
FIRE DEPARTMENT	37.6	36.7	37.2	36.5	38.1
POLICE DEPARTMENT	114.4	111.8	113.2	111.0	115.8
WATER DEPARTMENT	47.9	46.8	47.4	46.5	48.5
LANDFILL	24.8	24.2	24.5	24.0	25.1
AIRPORT BOARD	6.1	5.9	6.0	5.9	6.1
SEWER DEPARTMENT	36.0	35.2	35.6	34.9	36.4
TOTAL EXPENDITURES	472.3	461.4	467.3	458.1	478.2
REVENUE SURPLUS	12.0	15.9	17.0	31.8	50.4

SOURCE: WESTERN RESEARCH CORPORATION; LARAMIE, WYOMING (1982).

Projected needs for the Big Piney Police Department without the Riley Ridge project, based on maintaining the current staff ratio, indicate that additional increases in the current level of sworn officers and vehicles will not be necessary during the forecast period.

Fire Department

The Big Piney Fire Department is staffed by 20 volunteer fire fighters. The department has available 2 large pumpers, 2 tank trucks, 1 four-wheel drive pumper, and 1 small pumper. The department responds to fires in town and in the adjacent county area. Staff training includes fighting structure fires, grass fires, forest fires, and oil well fires.

The number of fire fighters is expected to adequate through the year 2000.

Municipal Water System

Big Piney has a metered water system drawing water from 5 wells into a 100,000 gallon storage facility. A recently added well, pump, and water line increase the estimated capacity in serviceable taps by 600. The present use rate is about 0.08 million gallons per day, about 147 gallons per citizen per day, and the present system capacity is approximately 0.2 million gallons per day.

The capacity needed under the baseline is expected to be between 110,000 and 115,000 gallons per day through the year 2000. Even though present water usage appears to be below the recommended level of 200 gallons per citizen per day, the projections show that the system has adequate capacity during the forecast period without the Riley Ridge Project.

Sewer System

The sewer system serving the Town of Big Piney is 25 years old. It is at capacity and plagued by the same groundwater problems that affect area residents. During the spring runoff the system runs full to overflowing. However, during the rest of the year it only runs one-third full. In 1983, construction will start on three new lagoons and the replacement of old lines. This will increase the system's capacity to a level adequate to serve 1,200 to 1,500 people and will eliminate the transmission of groundwater through the wastewater collection system.

Estimated wastewater treatment needs for the Town of Big Piney were projected using a state recommended average use rate of 130 gallons per citizen per day. Wastewater flows under the baseline are expected to be between 70,000 and 75,000 gallons per day through the year 2000. Projected population increases without the Riley Ridge Project would not increase demands on the wastewater system beyond its capacity at any time before the year 2000.

Street Department

The Street Department of Big Piney has a staff of one and three vehicles at its disposal. No increases in the street department staff are expected without the Riley Ridge project during the forecast period.

Parks and Recreation

The Town of Big Piney presently has no developed parks or recreation acreage. Using a standard of 6.2 acres per 1,000 population, a town of its size should have about 3.5 acres for parks and recreation.

Town of Marbleton

The following sections describe existing public services and facilities, and projected needs for services and facilities through 2000 without the Riley Ridge Project.

Revenue and Expenditures

Projected baseline revenue and expenditures for the Town of Marbleton are presented in Tables 3.2.3-22 and 3.2.3-23.

The largest contributors to the Town of Marbleton's revenue are sales and use taxes, severance taxes, and mineral royalty payments. Those categories of expenditures accounting for the largest share of the total are water and sewer, police department, town administration, and the street department (Town of Marbleton Budget, FY83).

The Town of Marbleton's current assessed valuation is slightly over $1.1 million. A levy of 8 mills is in effect to raise the required amount of taxes to finance the budget. Marbleton's general obligation bonding limit is currently about $46,500 and the only outstanding general obligation bonds are those for utility improvement, approximately $30,000.

Operating deficits are anticipated over the baseline forecast period from 1984 through 1995. The town has no excess revenue to use for capital expenditures.

TABLE 3.2.3-22

PROJECTED BASELINE TOWN OF MARBLETON REVENUE (IN THOUSANDS OF DOLLARS)

CATEGORY	1983	1984	1985	1986	1987
ASSESSED VALUATION	828.3	1164.8	1150.5	1160.7	1168.9
TAX REVENUE					
SALES TAX - 3 PCT	49.8	49.7	48.6	49.0	49.4
USE TAX - 3 PCT	4.8	4.9	4.8	4.8	4.8
OUT OF STATE USE	5.4	5.6	5.4	5.5	5.5
COUNTY TAXES	45.4	0.0	0.0	0.0	0.0
CIGARETTE TAX	1.5	1.5	1.5	1.5	1.5
GAS TAX	6.0	6.1	6.0	6.1	6.1
PROPERTY TAX	9.3	9.1	9.0	9.1	9.1
SUBTOTAL TAX REVENUE	122.2	76.9	75.3	75.9	76.5
OTHER GENERAL FUND REVENUE					
LICENSES, FINES, PERMITS	10.7	10.8	10.7	10.8	10.9
TIME DEPOSIT - GF	15.0	0.0	0.0	0.0	0.0
MINERAL ROYALTIES	24.6	24.6	24.6	24.6	24.6
SEVERANCE TAX	56.6	59.3	64.3	67.9	70.1
MISCELLANEOUS	3.5	1.5	1.5	1.5	1.5
WATER FEES	52.7	53.4	52.7	53.2	53.5
WATER DEVELOPMENT GRNT	49.0	0.0	0.0	0.0	0.0
SEWER FEES	12.4	12.6	12.4	12.5	12.6
LANDFILL FEES	5.0	5.1	5.0	5.0	5.1
UTILITY HOOKUPS	10.0	10.1	10.0	10.1	10.2
POWER FRANCHISE	1.6	1.6	1.6	1.6	1.6
UTILITY FUND - CD	10.0	0.0	0.0	0.0	0.0
UTILITY FUND - MISC	2.0	2.0	2.0	2.0	2.0
BONDS AND INTEREST	34.7	34.7	34.7	34.7	34.7
BANK BALANCE	45.0	0.0	0.0	0.0	0.0
SUBTOTAL OTHER GENERAL FUND	332.8	215.6	219.5	223.9	226.8
TOTAL REVENUE	455.0	292.5	294.8	299.9	303.2

(CONTINUED ON NEXT PAGE)

TABLE 3.2.3-22 (CONTINUED)

PROJECTED BASELINE TOWN OF MARBLETON REVENUE (IN THOUSANDS OF DOLLARS)

CATEGORY	1988	1989	1990	1995	2000
ASSESSED VALUATION	1177.1	1162.8	1136.2	1107.5	1152.5
TAX REVENUE					
SALES TAX - 3 PCT	49.7	48.6	46.7	45.0	47.0
USE TAX - 3 PCT	4.9	4.8	4.6	4.4	4.6
OUT OF STATE USE	5.6	5.4	5.2	5.0	5.3
COUNTY TAXES	0.0	0.0	0.0	0.0	0.0
CIGARETTE TAX	1.5	1.5	1.5	1.4	1.5
GAS TAX	6.1	6.1	5.9	5.8	6.0
PROPERTY TAX	9.2	9.1	8.9	8.7	9.0
SUBTOTAL TAX REVENUE	77.0	75.5	72.8	70.3	73.4
OTHER GENERAL FUND REVENUE					
LICENSES, FINES, PERMITS	10.9	10.8	10.6	10.3	10.7
TIME DEPOSIT - GF	0.0	0.0	0.0	0.0	0.0
MINERAL ROYALTIES	24.6	24.6	24.6	24.6	24.6
SEVERANCE TAX	71.8	73.8	76.0	92.1	118.7
MISCELLANEOUS	1.5	1.5	1.5	1.5	1.5
WATER FEES	53.9	53.3	52.0	50.7	52.8
WATER DEVELOPMENT GRNT	0.0	0.0	0.0	0.0	0.0
SEWER FEES	12.7	12.5	12.2	11.9	12.4
LANDFILL FEES	5.1	5.1	4.9	4.8	5.0
UTILITY HOOKUPS	10.2	10.1	9.9	9.6	10.0
POWER FRANCHISE	1.6	1.6	1.6	1.5	1.6
UTILITY FUND - CD	0.0	0.0	0.0	0.0	0.0
UTILITY FUND - MISC	2.0	2.0	2.0	2.0	2.0
BONDS AND INTEREST	34.7	34.7	34.7	34.7	34.7
BANK BALANCE	0.0	0.0	0.0	0.0	0.0
SUBTOTAL OTHER GENERAL FUND	229.1	230.0	230.0	243.8	274.1
TOTAL REVENUE	306.1	305.4	302.8	314.1	347.5

SOURCE: WESTERN RESEARCH CORPORATION; LARAMIE, WYOMING (1982).

PROJECTED BASELINE TOWN OF MARBLETON EXPENDITURES (IN THOUSANDS OF DOLLARS)

CATEGORY	1983	1984	1985	1986	1987
GENERAL ADMIN	43.2	44.3	43.8	44.2	44.5
STREET DEPARTMENT	40.0	40.5	40.0	40.4	40.6
FIRE DEPARTMENT	10.0	10.1	10.0	10.1	10.2
POLICE DEPARTMENT	80.0	81.0	80.0	80.7	81.3
WATER AND SEWER	51.0	51.6	51.0	51.5	51.8
NEW WELL	49.0	0.0	0.0	0.0	0.0
SANITATION	5.0	5.1	5.0	5.0	5.1
INSURANCE	8.0	8.1	8.0	8.1	8.1
UTILITIES	20.2	20.4	20.2	20.4	20.5
TOTAL EXPENDITURES	387.4	342.3	339.0	341.3	343.2
REVENUE SURPLUS	116.6	-49.8	-44.2	-41.5	-40.0

(CONTINUED ON NEXT PAGE)

3.2.3-23 (CONTINUED)

PROJECTED BASELINE TOWN OF MARBLETON EXPENDITURES (IN THOUSANDS OF DOLLARS)

CATEGORY	1988	1989	1990	1995	2000
GENERAL ADMIN	44.8	44.3	43.3	42.2	43.9
STREET DEPARTMENT	40.9	40.4	39.5	38.5	40.1
FIRE DEPARTMENT	10.2	10.1	9.9	9.6	10.0
POLICE DEPARTMENT	81.9	80.9	79.0	77.0	80.1
WATER AND SEWER	52.2	51.5	50.4	49.1	51.1
NEW WELL	0.0	0.0	0.0	0.0	0.0
SANITATION	5.1	5.1	4.9	4.8	5.0
INSURANCE	8.2	8.1	7.9	7.7	8.0
UTILITIES	20.7	20.4	19.9	19.4	20.2
TOTAL EXPENDITURES	345.1	341.8	335.7	329.1	339.5
REVENUE SURPLUS	-39.0	-36.4	-32.9	-15.0	8.0

SOURCE: WESTERN RESEARCH CORPORATION; LARAMIE, WYOMING (1982).

General Administration

General administrative duties in the Town of Marbleton are attended to by a town clerk.

Projected baseline needs for general administration staff for the Town of Marbleton indicate that increases in the administrative staff will not be necessary.

Police Department

Law enforcement services are provided to the residents of Marbleton by the town police force consisting of a chief and two sworn officers. Communications services for Marbleton police are provided by the Sublette County Sheriff's Office. The building housing the police department has adequate office space but no jail or holding cell. Prisoners must be transported to the county jail in Pinedale. The Marbleton Police Department has two vehicles and does not provide 24-hour coverage. It is anticipated that when the department expands to provide 24-hour coverage, 5 officers and a half-time support person will be needed.

Expected baseline law enforcement needs, assuming the maintenance of the current staff ratio, will not exceed current levels of officers and vehicles. No increases in the number of support staff will be needed without the Riley Ridge Project.

Fire Department

Fire protection services for the residents of the Town of Marbleton are provided through a contract with the Big Piney Volunteer Fire Department. A number of Marbleton residents serve as volunteer fire fighters on the Big Piney Fire Department. Discussion of the Big Piney Fire Department is found in a preceding section.

Municipal Water System

The Marbleton municipal water system consists of wells, a storage tower, and distribution lines. The system is unmetered at the point of consumption, but it distributes an average of 0.2 million gallons per day (Table 3.2.3-24). A new well was completed during 1982 and others are scheduled for completion during coming years.

Anticipated baseline water system needs are projected assuming a use rate of 200 gpcd. While slight increases are noted, those increases will not exceed the present capacity of the system.

Municipal Sewer System

The present sewer system serving the Town of Marbleton suffers from many of the problems that the system in Big Piney does. There is a groundwater problem in the area that causes a problem with infiltration of the old sewer lines. A recent EPA grant has made it possible for Marbleton to begin

expanding their sewer system in 1983 with the addition of one lagoon, the expansion of collector lines, and the replacement of existing lines. These improvements will increase the system's capacity to about 1,200 persons. The present average capacity is about 0.11 million gallons per day.

Expected baseline wastewater treatment needs in the Town of Marbleton will be approximately 75,000 gallons per day through the year 2000. Therefore, the current and improved system capacity is expected to be sufficient.

Street Department

The street department maintains the streets and maintains and repairs the municipal water and sewer systems. The street department consists of one man, one pickup truck, and two pieces of equipment.

TABLE 3.2.3-24

PROJECTED BASELINE REQUIREMENTS FOR TOWN OF MARBLETON WATER SYSTEM

Category	Presently Available[1]	Adequate for[2] 1982	1983	1984	1985	1986	1987	1988	1989	1990	1995	2000
Million Gallons/ Day	.2	.112	.114	.112	.123	.114	.115	.114	.111	.112	.110	.115

Source: Western Research Corporation; Laramie, Wyoming, 1982.

[1]Personal conversation with Mr. Harry Cameron, 1982.

[2]Projections based on assumed average daily consumption rate of 200 gallons per citizen day.

Projected needs indicate that there will be no need to expand the size of the street department without the Riley Ridge project.

Parks and Recreation

The Town of Marbleton has a 2.5-acre town park that is equipped with childrens' play equipment, picnic equipment, and a baseball diamond.

Although the number of recreation acres needs to be increased to 3.5 acres, no further increases will be necessary during the forecast period.

Sublette County School District #9

Revenue and Expenditures

Revenue and expenditure projections for Sublette County School District #9 without the Riley Ridge project are presented in Tables 3.2.3-25 and 3.2.3-26. Revenue surpluses are anticipated in all of the forecast years, with the amount of surplus increasing after 1985 due to increases in valuation of mineral properties.

The district's current bonding limit is $11.8 million with about $4 million in outstanding bonds in 1982.

Enrollments, Classroom Capacity, and Staff

Sublette County School District #9 includes the high school in Big Piney, the middle school in Big Piney, and the elementary schools in Big Piney and LaBarge.

In 1981-82 the Big Piney High School had an enrollment of about 167 with excess capacity to accommodate 50 more students. The Pinedale middle school had a 1981-82 enrollment of 154 students with sufficient capacity to accommodate an additional 100 students. The Big Piney elementary school had an enrollment of 257 students and could accommodate 115 more students. The LaBarge elementary school had an enrollment of 75 in 1981-82 with room for 60 more students.

As compared to the general standard of 25 students per teacher, School District #9 elementary level has an average of 16.6 students per teacher, middle school has 17 students per teacher, and the high school has 8 students per teacher.

Projected baseline enrollments for School District #9 are presented in Table 3.2.3-27. Modest enrollment increases are expected from 1985 through 1989. These increases can be accommodated by existing classrooms and staff.

Sweetwater County

This section describes the existing public services and facilities in the Town of Granger in Sweetwater County. Existing and projected public services and facilities for Sweetwater County and Sweetwater County School District #2 are

TABLE 3.2.3-25

PROJECTED BASELINE SUBLETTE SCHOOL DIST. #9 REVENUE (IN THOUSANDS OF DOLLARS)

CATEGORY	1982	1983	1984	1985	1986	1987
DISTRICT VALUE - BASELINE	86959.4	118194.2	128074.0	144080.0	168977.0	185925.0
REVENUE						
BEGINNING BALANCE	633.0	775.1	0.0	0.0	0.0	0.0
LOCAL DISTRICT REVENUE						
PROPERTY TAXES	2161.0	2954.9	3201.9	3602.0	4224.4	4648.1
OTHER LOCAL	47.0	50.1	50.5	50.1	50.5	50.9
COUNTY REVENUE						
COUNTY TAXES	828.6	778.7	829.5	934.0	1099.6	1211.0
STATE REVENUE						
LAND INCOME	80.0	80.0	80.0	80.0	80.0	80.0
PUPIL ACTIVITY	48.3	51.5	51.9	51.5	51.9	52.3
TOTAL REVENUE	3797.9	4690.3	4213.8	4717.6	5506.5	6042.3

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TABLE 3.2.3-25 (CONTINUED)

PROJECTED BASELINE SUBLETTE SCHOOL DIST. #9 REVENUE (IN THOUSANDS OF DOLLARS)

CATEGORY	1988	1989	1990	1995	2000
DISTRICT VALUE - BASELINE	196265.0	221976.0	253875.0	253899.0	255123.0
REVENUE					
BEGINNING BALANCE	0.0	0.0	0.0	0.0	0.0
LOCAL DISTRICT REVENUE					
PROPERTY TAXES	4906.6	5549.4	6346.9	6347.5	6378.1
OTHER LOCAL	51.3	50.9	50.0	49.7	52.0
COUNTY REVENUE					
COUNTY TAXES	1287.2	1480.2	1722.6	1720.6	1726.5
STATE REVENUE					
LAND INCOME	80.0	80.0	80.0	80.0	80.0
PUPIL ACTIVITY	52.7	52.3	51.3	51.1	53.4
TOTAL REVENUE	6377.9	7212.8	8250.8	8248.9	8290.0

SOURCE: WESTERN RESEARCH CORPORATION; LARAMIE, WYOMING (1982).

TABLE 3.2.3-26

PROJECTED BASELINE SUBLETTE SCHOOL DIST. #9 EXPENDITURES (IN THOUSANDS OF DOLLARS)

CATEGORY	1982	1983	1984	1985	1986	1987
INSTRUCTION	1904.5	2029.9	2047.4	2029.9	2047.4	2062.0
INSTRUCTION SUPPORT	117.1	124.8	125.9	124.8	125.9	126.8
GENERAL SUPPORT	1501.5	1600.4	1614.2	1600.4	1614.2	1625.7
COMMUNITY SUPPORT	21.3	22.7	22.9	22.7	22.9	23.1
CAPITAL OUTLAY	0.0	0.0	0.0	0.0	0.0	0.0
DEBT SERVICE	0.0	0.0	0.0	0.0	0.0	0.0
CASH RESERVE	50.0	0.0	0.0	0.0	0.0	0.0
PUPIL ACTIVITY	48.3	55.7	56.1	55.7	56.1	56.5
NON PROGRAM CHARGES	155.2	165.6	167.1	165.6	167.1	168.3
TOTAL EXPENDITURES	3797.9	3999.1	4033.6	3999.1	4033.6	4062.3
REVENUE SURPLUS	0.0	691.1	180.2	718.5	1472.9	1980.0

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TABLE 3.2.3-26 (CONTINUED)

PROJECTED BASELINE SUBLETTE SCHOOL DIST. #9 EXPENDITURES (IN THOUSANDS OF DOLLARS)

CATEGORY	1988	1989	1990	1995	2000
INSTRUCTION	2079.5	2062.0	2024.1	2015.3	2105.7
INSTRUCTION SUPPORT	127.9	126.8	124.5	123.9	129.5
GENERAL SUPPORT	1639.5	1625.7	1595.8	1588.9	1660.2
COMMUNITY SUPPORT	23.3	23.1	22.6	22.5	23.6
CAPITAL OUTLAY	0.0	0.0	0.0	0.0	0.0
DEBT SERVICE	0.0	0.0	0.0	0.0	0.0
CASH RESERVE	0.0	0.0	0.0	0.0	0.0
PUPIL ACTIVITY	57.0	56.5	55.5	55.3	57.7
NON PROGRAM CHARGES	169.7	168.3	165.2	164.5	171.8
TOTAL EXPENDITURES	4096.8	4062.3	3987.6	3970.4	4148.5
REVENUE SURPLUS	2281.1	3150.5	4263.1	4278.5	4141.5

SOURCE: WESTERN RESEARCH CORPORATION; LARAMIE, WYOMING (1982).

TABLE 3.2.3-27

BASELINE ENROLLMENT AND CLASSROOM/TEACHER PROJECTIONS FOR SUBLETTE COUNTY SCHOOL DISTRICT #9

Category	82-83	83-84	84-85	85-86	86-87	87-88	88-89	89-90	94-95	99-00
Enrollments										
K-5	352	355	351	354	357	360	357	351	349	365
6-8	162	164	162	164	165	166	165	162	161	168
9-12	182	183	183	184	185	187	185	181	181	189
Total Enrollments	696	702	696	702	707	713	707	694	691	722
Classrooms/Teachers[1]										
K-5	21	21	21	21	22	22	22	21	21	22
6-8	10	10	10	10	10	10	10	10	9	10
9-12	23	23	23	23	23	23	23	23	23	24
Total Classrooms/ Teachers	54	54	54	54	55	55	55	54	53	56

Source: Western Research Corporation; Laramie, Wyoming (1982).

[1]Projections are based on the following assumed ratios: 16.6 elementary students per room; 17 middle school students per room; 8 high school students per room; and 1 teacher for each classroom.

not included since changes in population and enrollments will be relatively small. However, the potentially affected Granger Elementary School will be included in the discussion of Granger.

Town of Granger

The Town of Granger is the second smallest incorporated community in Sweetwater County. It is located in the west central portion of the county. Subsequent sections will describe revenue and expenditures along with existing public services and facilities in Granger, and projections for needed services and facilities through 2000 without the Riley Ridge Project will also be presented. Granger Elementary School will be discussed in terms of enrollments, classrooms, teachers, and capacities.

Revenue and Expenditures

In 1982, the Town of Granger operated with a budget of approximately $291,000. Revenue and expenditure information from this budget and that of the following fiscal year (FY83) was used as a basis for making revenue and expenditure projections through 2000. Revenue and expenditures for 1982 appear as the first columns in Tables 3.2.3-28 and 3.2.3-29.

Table 3.2.3-28 shows baseline revenue projections. Under the baseline it appears that Granger's revenue will fluctuate slightly in response to population changes through 2000.

Expenditure projections for Granger appear in Table 3.2.3-29. Comparison of these with revenue projections indicate that revenue surpluses are projected through 1986. Anticipated revenue and expenditures for capital projects account for the large expenditure total in 1983. Deficits are projected from 1987 through 2000. These deficits are small, with the largest projected deficit being $10,800 for 2000. These projections indicate that Granger's revenue will keep pace with expenditures through 1985; after that fiscal year, more revenue may need to be generated to maintain Granger's present level of municipal services without the Riley Ridge project.

Granger's current bonding capacity is 4 percent of the assessed valuation of $369,454 or $17,770. Bonding capacity will increase as the town's assessed valuation increases with population growth.

General Administration

General administration for the Town of Granger is the responsibility of a mayor, a clerk, and a four-person town council. No additional clerical personnel are employed by the town. Projections of administrative personnel requirements through 2000 indicate an additional one-half position will be required during the projection period.

Plans are underway to secure necessary funding to build a new community facilities center to accommodate existing and anticipated office space needs. The proposed facilities center would house most community service departments,

TABLE 3.2.3-28

PROJECTED BASELINE TOWN OF GRANGER REVENUE (IN THOUSANDS OF DOLLARS)

CATEGORY	1982	1983	1984	1985	1986	1987
ASSESSED VALUATION	369.4	367.4	371.4	377.4	383.4	389.4
PROPERTY TAX	2.5	2.9	3.0	3.0	3.1	3.1
1% SALES AND USE TAX	29.9	29.7	29.9	30.2	30.6	31.0
IN LIEU OF TAX FUNDS	0.0	30.0	30.0	30.0	30.0	30.0
3% SALES AND USE TAX	30.9	30.6	30.8	31.1	31.5	31.9
CIGARETTE TAX	3.8	4.0	4.0	4.1	4.1	4.2
GASOLINE TAX	2.0	2.0	2.0	2.0	2.1	2.1
MINERAL ROYALTIES	7.4	15.0	15.0	15.0	15.0	15.0
2% SEVERANCE TAX	18.9	18.3	19.2	20.8	22.0	22.6
IMPACT ASSISTANCE TAX	0.0	0.0	2.4	3.9	3.6	0.0
LICENSES,FEES,AND FINES	1.6	8.4	8.4	8.6	8.7	8.9
REVENUE SHARING	0.0	8.6	0.0	0.0	0.0	0.0
WATER FUND						
WATER GRANTS AND LOANS	7.9	86.8	0.0	0.0	0.0	0.0
USER FEES	20.5	28.2	28.5	29.0	29.4	29.9
TAP AND CONNECTION FEES	50.0	50.0	3.9	5.6	.6	0.0
BOND RESERVE	0.0	3.2	0.0	0.0	0.0	0.0
SEWER FUND						
GRANTS AND LOANS	0.0	8.2	0.0	0.0	0.0	0.0
USER FEES	13.7	31.1	31.5	32.0	32.5	33.0
TAP AND CONNECTION FEES	50.0	40.0	3.6	5.2	.5	0.0
BOND SINKING AND RESERVE	0.0	4.2	0.0	0.0	0.0	0.0
OTHER REVENUE						
STREET PROJ. FUNDING	0.0	85.0	0.0	0.0	0.0	0.0
RECREATION PROJ. GRANTS	52.0	116.8	0.0	0.0	0.0	0.0
INTEREST INCOME	0.0	1.0	0.0	0.0	0.0	0.0
CASH ON HAND	0.0	11.3	0.0	0.0	0.0	0.0
TOTAL REVENUE	291.1	615.3	212.2	220.5	213.8	211.7

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TABLE 3.2.3-28 (CONTINUED)

PROJECTED BASELINE TOWN OF GRANGER REVENUE (IN THOUSANDS OF DOLLARS)

CATEGORY	1988	1989	1990	1995	2000
ASSESSED VALUATION	395.4	401.3	407.3	451.3	511.2
PROPERTY TAX	3.2	3.2	3.3	3.6	4.1
1% SALES AND USE TAX	31.4	31.9	32.3	35.1	38.9
IN LIEU OF TAX FUNDS	30.0	30.0	30.0	30.0	30.0
3% SALES AND USE TAX	32.4	32.8	33.3	36.2	40.0
CIGARETTE TAX	4.3	4.3	4.4	4.9	5.5
GASOLINE TAX	2.1	2.2	2.2	2.4	2.8
MINERAL ROYALTIES	15.0	15.0	15.0	15.0	15.0
2% SEVERANCE TAX	23.2	23.9	24.6	29.8	38.4
IMPACT ASSISTANCE TAX	0.0	0.0	0.0	0.0	0.0
LICENSES,FEES,AND FINES	9.0	9.1	9.3	10.3	11.6
REVENUE SHARING	0.0	0.0	0.0	0.0	0.0
WATER FUND					
WATER GRANTS AND LOANS	0.0	0.0	0.0	0.0	0.0
USER FEES	30.3	30.8	31.3	34.6	39.2
TAP AND CONNECTION FEES	1.7	2.3	1.7	0.0	0.0
BOND RESERVE	0.0	0.0	0.0	0.0	0.0
SEWER FUND					
GRANTS AND LOANS	0.0	0.0	0.0	0.0	0.0
USER FEES	33.5	34.0	34.5	38.2	43.3
TAP AND CONNECTION FEES	1.5	2.1	1.5	0.0	0.0
BOND SINKING AND RESERVE	0.0	0.0	0.0	0.0	0.0
OTHER REVENUE					
STREET PROJ. FUNDING	0.0	0.0	0.0	0.0	0.0
RECREATION PROJ. GRANTS	0.0	0.0	0.0	0.0	0.0
INTEREST INCOME	0.0	0.0	0.0	0.0	0.0
CASH ON HAND	0.0	0.0	0.0	0.0	0.0
TOTAL REVENUE	217.6	221.6	223.3	240.1	268.8

SOURCE: WESTERN RESEARCH CORPORATION; LARAMIE, WYOMING (1982).

TABLE 3.2.3-29

PROJECTED BASELINE TOWN OF GRANGER EXPENDITURES (IN THOUSANDS OF DOLLARS)

CATEGORY	1982	1983	1984	1985	1986	1987
GENERAL FUND						
GENERAL ADMINISTRATION						
OPERATING EXPENSES	45.9	43.3	43.8	44.5	45.2	45.9
FIRE DEPARTMENT						
OPERATING EXPENSES	12.0	17.5	17.7	18.0	18.3	18.5
POLICE DEPARTMENT						
OPERATING EXPENSES	26.3	39.8	40.2	40.9	41.5	42.2
STREETS AND ALLEYS						
OPERATING EXPENSES	10.9	14.3	14.5	14.7	14.9	15.2
CAPITAL FACILITIES	10.0	97.0	0.0	0.0	0.0	0.0
PLANNING AND BUILDING						
OPERATING EXPENSES	2.6	2.1	2.1	2.2	2.2	2.2
RECREATION/CEMETARY/STG.						
OPERATING EXPENSES	5.2	5.3	5.3	5.4	5.5	5.6
CAPITAL FACILITIES	52.0	116.7	0.0	0.0	0.0	0.0
LAND AND EASEMENTS						
OPERATING EXPENSES	12.9	16.8	17.0	17.3	17.5	17.8
WATER FUND						
OPERATING EXPENSES	24.5	25.0	25.2	25.6	26.1	26.5
CAPITAL FACILITIES	48.9	135.9	0.0	0.0	0.0	0.0
BOND REDEMPT./INTEREST	6.0	6.0	6.0	6.0	6.0	6.0
SEWER FUND						
OPERATING EXPENSES	13.7	27.5	27.8	28.2	28.6	29.1
CAPITAL FACILITIES	0.0	58.9	0.0	0.0	0.0	0.0
BOND REDEMPT/INTEREST	10.0	7.2	7.2	7.2	7.2	7.2
TOTAL EXPENDITURES	280.9	613.2	206.8	209.9	213.0	216.1
REVENUE SURPLUS	0.0	2.1	5.4	10.7	.7	-4.5

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TABLE 3.2.3-29 (CONTINUED)

PROJECTED BASELINE TOWN OF GRANGER EXPENDITURES (IN THOUSANDS OF DOLLARS)

CATEGORY	1988	1989	1990	1995	2000
GENERAL FUND					
GENERAL ADMINISTRATION					
OPERATING EXPENSES	46.6	47.3	48.0	53.2	60.3
FIRE DEPARTMENT					
OPERATING EXPENSES	18.8	19.1	19.4	21.5	24.3
POLICE DEPARTMENT					
OPERATING EXPENSES	42.8	43.5	44.1	48.9	55.3
STREETS AND ALLEYS					
OPERATING EXPENSES	15.4	15.6	15.9	17.6	19.9
CAPITAL FACILITIES	0.0	0.0	0.0	0.0	0.0
PLANNING AND BUILDING					
OPERATING EXPENSES	2.3	2.3	2.3	2.6	2.9
RECREATION/CEMETARY/STG.					
OPERATING EXPENSES	5.7	5.7	5.8	6.5	7.3
CAPITAL FACILITIES	0.0	0.0	0.0	0.0	0.0
LAND AND EASEMENTS					
OPERATING EXPENSES	18.1	18.4	18.6	20.6	23.4
WATER FUND					
OPERATING EXPENSES	26.9	27.3	27.7	30.7	34.7
CAPITAL FACILITIES	0.0	0.0	0.0	0.0	0.0
BOND REDEMPT./INTEREST	6.0	6.0	6.0	6.0	6.0
SEWER FUND					
OPERATING EXPENSES	29.5	30.0	30.4	33.7	38.2
CAPITAL FACILITIES	0.0	0.0	0.0	0.0	0.0
BOND REDEMPT/INTEREST	7.2	7.2	7.2	7.2	7.2
TOTAL EXPENDITURES	219.3	222.4	225.5	248.4	279.6
REVENUE SURPLUS	-1.7	-.8	-2.2	-8.3	-10.8

SOURCE: WESTERN RESEARCH CORPORATION; LARAMIE, WYOMING (1982).

as well as provide space for community activities. Its estimated cost is $200,000 (Sweetwater County Community Facilities Plan, 1981).

Police Department

Granger's law enforcement staff consists of 1 part-time Chief of Police, and 1 full-time officer. There are no support or auxiliary personnel, and communication services are provided by the Sweetwater County Sheriff's Department. The police department maintains 1 vehicle.

Projected personnel and vehicle requirements for Granger's police department indicate that the number of officers and vehicles are adequate through 2000 based on the standards described in Appendix A.

Although staffing levels are considered adequate by local officials (Rose Hullinger personal communication 1982), there is a recognized need for additional administrative and storage space for the police department. Hopefully, the proposed community facility center will accommodate this need.

Fire Department

The Town of Granger has a volunteer fire department. A staff of 12 volunteers is headed by a part-time chief. Present equipment includes three small pumpers, the newest of which is 27 years old. The town recognizes the need for a new fire truck, particularly in light of anticipated population growth. Projected needs for volunteer staff indicate that 14 volunteers will be needed by 1990, and 17 total volunteers will be needed by 2000.

The fire station is housed in a recently purchased building which is essentially a garage. This building needs to be upgraded to provide better doors and insulation.

Municipal Water Department

Granger's water storage and distribution system was recently modernized and is described as presently adequate (Rose Hullinger personal communication 1982). Plans are underway to secure the town's water supply link by completing an independent pipeline to the Green River. Planning for development of a town controlled pipeline is in the design/engineering phase. Estimated cost for the pipeline project is $1.0 million (Sweetwater County Community Facilities Plan, 1981).

The town's water filtration and purification plant has been modernized and presently has the capacity to serve a population of at least 600. Further expansions of the well and filtration systems are recognized as future needs at an estimated cost of $250,000. Table 3.2.3-30 shows projected municipal water needs for Granger. These projections indicate that the present facility can adequately provide for water requirements well beyond 2000.

Sanitary Sewer System.

Granger's sanitary sewer system has been recently upgraded, and the new system

TABLE 3.2.3-30

PROJECTED BASELINE REQUIREMENTS FOR TOWN OF GRANGER MUNICIPAL WATER DEPARTMENT

Category	Presently Available[1]	Adequate for[2] 1982	1983	1984	1985	1986	1987	1988	1989	1990	1995	2000
Million Gallons/ Day	.14	.037	.037	.037	.038	.038	.039	.040	.040	.041	.045	.052

Source: Western Research Corporation; Laramie, Wyoming, 1982.

[1]Personal conversation with Rose Hullinger, Town Clerk, Granger, September, 1982.

[2]Projections based on an assumed average yearly consumption rate of 200 gallons per citizen day (see Appendix A).

has been in use since August of 1981. The system includes new lagoon cells, a new transmission line, and a new lift station. The current capacity of the sewer system is 0.060 million gallons per day, and the system's capacity can be doubled with minor modifications.

Table 3.2.3-31 shows projected requirements for Granger's sewage treatment system. It is apparent from these projections that the present sewer system can accommodate projected increases in use without the Riley Ridge project.

Street Department

Granger has no street maintenance personnel of its own, but is currently engaged in a $98,500 privately constructed street paving project known as the Second Street Project.

Another recognized need is for improvement of the bridge over the Black's Fork River. Funding for this $633,000 project is currently being negotiated with the Sweetwater County Commissioners.

Solid Waste Disposal

The town's present solid waste disposal facility is an open dump on private property, which is not in compliance with state regulations. Consequently, Granger needs to attempt to close and restore that site and make alternative arrangements for disposal of its solid waste.

The possibility of establishing a new western solid waste district in Sweetwater County is currently being studied so that a new landfill may be established to serve that portion of the county, including Granger. Attempts to establish this district have been unsuccessful thus far. According to the standard of 0.15 acres per 1,000 population per year, Granger will need 0.58 total acres to accommodate its solid waste disposal needs through 2000 (Table 3.2.3-32).

Parks and Recreation

Roy Adams Park in Granger presently includes a baseball diamond, a basketball court, picnic facilities, a playground, and a park house with restrooms; the park consists of 5 acres. An additional 20 acres of land have been acquired along the Black's Fork River for recreational development. No plans exist for development of this land, since the Roy Adams Park adequately serves current projected parks and recreation demand based on standards described in Appendix A. Planned improvements to the presently developed park include more lighting for the baseball field, installation of a sprinkler system, and upgrading of fences.

Granger Elementary School

Current enrollment at Granger Elementary School is 70 students. There are 4 teachers at the school, making the student-to-teacher ratio 17.5. The school has 5 classrooms plus a gym and auditorium stage; its recommended capacity is 100 (20 students/classroom) and its maximum capacity is 125 (25

TABLE 3.2.3-31

PROJECTED BASELINE REQUIREMENTS FOR TOWN OF GRANGER SANITARY SEWER SYSTEM

Category	Presently Available[1]	Adequate for[2] 1982	1983	1984	1985	1986	1987	1988	1989	1990	1995	2000
Million Gallons/ Day	.060	.024	.024	.024	.025	.025	.025	.026	.026	.027	.029	.034

Source: Western Research Corporation; Laramie, Wyoming, 1982.

[1]Personal conversation with Rose Hullinger, Town Clerk, Granger, September, 1982.

[2]Projections based on an assumed average treatment rate of 130 gallons per citizen day (see Appendix A).

TABLE 3.2.3-32

PROJECTED BASELINE REQUIREMENTS FOR TOWN OF GRANGER SOLID WASTE DISPOSAL

Category	Presently Available[1]	Adequate for[2] 1982	1983	1984	1985	1986	1987	1988	1989	1990	1995	2000
Acres/year	0	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04
Cumulative Total	-	0.03	0.06	0.09	0.12	0.15	0.18	0.21	0.24	0.27	0.42	0.58

Source: Western Research Corporation; Laramie, Wyoming, 1982.

[1]Sweetwater County Community Facilities Plan, Sweetwater County Association of Governments, 1981.

[2]Projections based on an average requirement for sanitary landfill acreage of 0.15 acres per 1,000 population per year (see Appendix A).

students/classroom). Expansion potential for Granger Elementary is limited (personal communication with Delores Bigelow, Secretary to Superintendent, School District #2).

3.2.4 HUMAN SERVICES

Lincoln County

Health and Medical Services

Lincoln County health care facilities consist of two small hospitals, one in Afton and one in Kemmerer. South Lincoln Hospital in Kemmerer has a capacity of 20 beds and an occupancy rate of only 30 percent. South Lincoln Hospital is not accredited. There are no nursing home beds in the county.

The following health care professionals are employed in Lincoln County:

- 7 doctors
- 5 dentists
- 1 public health nurse
- 21 registered nurses (Wyoming Division of Health and Medical Services, 1981).

These numbers are currently inadequate in each area.

Table 3.2.4-1 shows the baseline need for health care personnel and facilities. By the year 1990, 11 doctors, 7 dentists, 3 public health nurses, 67 registered nurses, 31 hospital beds and 12 nursing home beds will be needed. Only the number of hospital beds are currently adequate to meet anticipated growth. In 2000, about 13 doctors, 8 dentists, 3 public health nurses, 75 registered nurses, 34 hospital beds, and 13 nursing home beds will be needed.

Mental Health Services

Lincoln County is served by a mental health center and a counseling center. South Lincoln Community Counseling Center is located in Kemmerer, and North Lincoln Mental Health Center is located in Afton. Each location employs two full-time professionals and one secretary/office manager. Both centers offer a variety of counseling and testing services (OIA 1982).

Mental health staff needs are expected to increase slightly with anticipated population growth. Without the Riley Ridge project one more professional will be needed by 2000.

Welfare and Social Services

Lincoln County has a Department of Public Assistance and Social Services (D-PASS) located in Kemmerer, with a field office in Afton. At present, D-PASS employs five full-time people, with funding provided at the state level. Services are offered by D-PASS in the following areas:

TABLE 3.2.4-1

PROJECTED BASELINE REQUIREMENTS FOR LINCOLN COUNTY HEALTH AND MEDICAL SERVICES

Category	Presently Available[1]	Adequate for[2] 1982	1983	1984	1985	1986	1987	1988	1989	1990	1995	2000
Personnel												
Doctors	7	11	11	11	11	11	11	11	11	11	12	13
Dentists	5	7	7	7	7	7	7	7	7	7	8	8
Public Health Nurses	1	2	2	2	2	2	2	3	3	3	3	3
Registered Nurses	21	62	62	62	63	64	65	65	66	67	70	75
Facilities												
Nursing Home Beds	0	11	11	11	11	11	11	11	12	12	12	13
Hospital Beds	35	29	28	29	29	29	30	30	31	31	32	34

Source: Western Research Corporation; Laramie, Wyoming, 1982.

[1]Wyoming Division of Health and Medical Services, 1981, Wyoming Health Resource Profiles.

[2]Projections are based on the following personnel to population ratios: Doctors .76/1,000; Dentists, .49/1,000; Public Health Nurses, .17/1,000; Registered Nurses, 4.46/1,000; Hospital Beds, 2.05/1,000; Nursing Home Beds, .78/1,000 (see Appendix A).

Public Assistance
- Supplemental Security Income
- Aid to Families with Dependent Children
- Medical
- Minimum Medical Program
- Emergency Assistance
- General Assistance

Social Services
- Adoption
- Foster Care
- Child Abuse Counseling
- Family Planning
- Early and Periodic Screening and Detection
- Day Care
- Homemaker; and
- Counseling (OIA 1982).

It is projected that D-PASS staff requirements will increase with population growth. By 1995, 6 staff members will be needed. This staffing requirement will remain relatively stable through 2000.

Welfare, social, and human services for municipalities in Lincoln County are provided by the county. Since these services are discussed here, they will not be discussed subsequently for each municipality.

Sublette County

Health and Medical Services

Sublette County owns the Pinedale Medical Clinic and a small clinic in Big Piney. The Pinedale Medical Clinic was constructed in 1978. The management of both facilities is under the supervision of the Sublette County Hospital Board.

Two doctors provide outpatient general medical and emergency services through these two facilities. More serious cases are referred to hospitals in Jackson, Rock Springs, Lander, or Salt Lake City. Over the last few years there has been a general increase in demand for services. From August, 1981 to August, 1982 an average of 794 cases per month were treated. A larger number of cases are treated during the summer and fall months than throughout the rest of the year.

The Sublette County area is also served by one full-time dentist and one part-time dentist.

Sublette County is also served by two public health nurses from offices in Pinedale and Marbleton. Services provided by public health nurses include: home health care, medicare certified home health aid, prenatal classes, antepartum and postpartum information, antepartum and postpartum evaluation, children's health evaluation, immunization clinics, follow-up on contagious disease outbreaks, individual health information, and adult health clinics for

seniors. The public health workload has been increasing with an increased demand for maternal-child health care and prenatal education.

Ambulance services are also supervised by the Sublette County Hospital Board. Two ambulances, one stationed in Pinedale and the other in Big Piney, provide services to Sublette County residents.

The Sublette County Retirement Center in Pinedale opened in March of 1982. The Retirement Center is a private non-profit facility that provides 34 nursing home beds, 20 residential rooms for the self-sufficient, and will soon open 21 condominiums for seniors.

Table 3.2.4-2 presents projected baseline health care needs for Sublette County. The number of doctors, dentists and registered nurses presently available is below the needs projected based on state-wide averages. The present number of public health nurses, nursing home beds, and ambulances is above state averages. Needs for county health and medical services are not expected to increase without the Riley Ridge Project.

Mental Health Services

Sublette County residents receive mental health services through clinics in Pinedale and Big Piney that are associated with the Western Wyoming Mental Health Association. Diagnostic and clinical services are provided to county residents and school districts. Individual, family, and group therapy is provided by one psychologist. An additional staff member is currently being sought.

The physical facilities in both Pinedale and Big Piney are adequate.

No increase in needs for mental health professionals is projected without the Riley Ridge Project.

Welfare and Social Services

Welfare and social services are provided to Sublette County residents through the Wyoming Department of Public Assistance and Social Services (D-PASS) in Pinedale. A full range of services is provided by one social worker. Over the past few years there has been a general increase in demand for services and total grants for general assistance and emergency assistance have increased markedly since March of 1982. Some inefficiencies in operation were noted, due primarily to long distances to be traveled within the county to provide services; and, without the county to coordinate with other service agencies that do not have offices in the county, provision of services is made more difficult.

Projected welfare and social service demands indicate that there will be no increased needs for social service and welfare staff without the Riley Ridge Project.

TABLE 3.2.4-2

PROJECTED BASELINE REQUIREMENTS FOR SUBLETTE COUNTY HEALTH AND MEDICAL SERVICES

Category	Presently Available[1]	Adequate for[2] 1982	1983	1984	1985	1986	1987	1988	1989	1990	1995	2000
Personnel												
Doctors	2	4	4	4	4	4	4	4	4	4	4	4
Dentists	2	2	2	2	2	2	2	2	2	2	2	2
Public Health Nurses	2	1	1	1	1	1	1	1	1	1	1	1
Registered Nurses	9	21	22	21	21	22	22	22	21	21	21	22
Facilities												
Nursing Home Beds	34	4	4	4	4	4	4	4	4	4	4	4
Ambulances	2	1	1	1	1	1	1	1	1	1	1	1

Source: Western Research Corporation; Laramie, Wyoming, 1982.

[1]Personal conversation with Dr. John Thomas, Pat Sigursclid RN, and Marilyn Jensen, 1982.

[2]Projections are based on the following personnel to population ratios: Doctors .76/1,000; Dentists, .49/1,000; Public Health Nurses, .17/1,000; Registered Nurses, 4.46/1,000; Nursing Home Beds, .78/1,000; and ambulances, .28/1,000 (see Appendix A).

Sweetwater County

Human Services

Residents of Granger depend on Sweetwater County to provide necessary human services. Welfare and social services are provided by the county Department of Public Assistance and Social Services (D-PASS) housed in Rock Springs. The Job Service in Rock Springs provides job placement and development services. Mental health services are provided by Southwest Counseling Service, also in Rock Springs. In addition to these services, Sweetwater County has the following human service agencies:

- Office of Vocational Rehabilitation
- YWCA
- Sweetwater County Task Force on Sexual Assault
- Southwest Wyoming Alcoholism Rehabilitation Association
- Sweetwater County Child Development Center
- Southwest Wyoming Rehabilitation Center
- Sweetwater County Family Planning
- Western Wyoming Women's Resource Center
- Senior Citizens' Programs

The Volunteer Information and Referral Service in Rock Springs serves as a directory organization for human services information and referral in Sweetwater County.

3.2.5 SOCIAL CONDITIONS

Quality of life and social well-being are related to many subjective and objective aspects of social environment. Overall satisfaction with community and satisfaction with various aspects of community life (such as services, political action, and cohesiveness) contribute to individual perceptions of quality of life and social well-being. Although the literature on quality of life and social well-being is unclear about what set of indicators best address the concepts, it is generally agreed that secondary data reflecting per capita income, unemployment rates, divorce rates, infant mortality rates, mental illness rates, and crime rates are measures that address some aspects of quality of life and social well-being. Such measures as per capita income, unemployment rates and infant mortality rates are sometimes used as measures of development. That is, the higher the per capita income (and the more equitably it is distributed), the lower the unemployment rate, and the lower the infant mortality rate, the more "developed" a community or society is considered to be.

The problem with using secondary indicators such as described above, is that these indicators are affected by numerous variables. Good scientific research on the effects of rapid population growth and/or energy development has made it clear that direct causal relationships between energy development and/or population growth and indicator variables such as crime rates, mental health admission rates, and suicide rates have not been demonstrated.

Wilkinson, et al. (1982) reviewed the so-called "Boomtown Literature" and were unable to find any acceptable empirical evidence demonstrating a significant

relationship between energy development and the often quoted "dismal" list of negative social changes, i.e., increased divorce, suicide, crime, child abuse, etc.

The Summary Research Report from the BLM Social Effects Project (Thompson, Branch and Williams, 1982) concluded that social changes due to energy development varied widely from community to community. This study concluded that a variety of site-specific characteristics determine in large measure the social outcomes of energy development.

Because of these and related findings, we strongly suggest that secondary indicators cannot be analyzed and correctly understood in the absence of primary research conducted in the specific communities being analyzed. Therefore, we present baseline data on the indicators which were available but refrain from drawing any conclusions.

Caution should be observed in interpreting the data below. Problems with reporting consistency, problems with the addition of personnel or changes within organizations reporting data, and the problem of calculating rates on a small number of incidences all can contribute to distortion of the data. Where possible, total state numbers and rates are presented for comparison.

Per Capita Income

Distributional questions aside, per capita income represents the level of economic development in a given county, state, or nation. One should recognize, however, that less income is needed for families living on farms (because of the self sufficiency in food production). Thus a similar quality of life can be maintained by a farm family (as compared to a non-farm family) with less income. Because the counties within the area of site influence have had important agricultural sectors in their economies, caution should be used in interpreting the data presented below.

Table 3.2.5-1 shows the per capita personal income for Sublette County, Lincoln County, and the State of Wyoming from 1976 through 1980. As indicated in the table, per capita income in both counties, as well as the state, has been increasing. (These figures are not adjusted for inflation.) Sublette County's per capita income has consistently been higher than that of the state as a whole, while Lincoln County has consistently lagged behind the state. It can be expected that growth in per capita income will occur at a faster rate in these two counties than in the state as resource recovery and processing activity increases in the area.

Unemployment

Unemployment rates indicate an economy's ability to keep its workers gainfully employed. Official unemployment rates consider only those workers who do not have jobs and are currently looking for a job. Thus the rates do not reflect those people who want to work but are not actively looking for a job nor those discouraged workers who have quit looking for a job. Table 3.2.5-2 shows the unemployment rates for Sublette County, Lincoln County, and the State of Wyoming. Again Sublette County's economy appears better than Lincoln County's

TABLE 3.2.5-1

PER CAPITA PERSONAL INCOME FOR SUBLETTE COUNTY, LINCOLN COUNTY, AND THE STATE OF WYOMING, 1976-1980[1]

	1976	1977	1978	1979	1980
Sublette County	7,029	7,866	9,474	11,123	11,436
Lincoln County	6,101	6,615	7,340	8,517	9,414
State of Wyoming	6,791	7,558	8,572	9,798	10,875

Source: Regional Economic Information System, Bureau of Economic Analysis, U.S. Department of Commerce, April, 1982.

[1]Residence adjusted.

TABLE 3.2.5-2

UNEMPLOYMENT RATES FOR SUBLETTE COUNTY,
LINCOLN COUNTY, AND THE STATE OF WYOMING, 1976-1981

	1976	1977	1978	1979	1980	1981
Sublette County	3.0	2.7	2.6	2.3	3.0	2.3
Lincoln County	6.2	6.5	5.7	4.8	6.5	6.1
State of Wyoming	4.1	3.7	3.4	2.8	3.8	4.5[1]

Source: Wyoming Employment Security Commission, "Wyoming Labor Force Trends" and Wyoming Data Handbook 1981, Department of Administration and Fiscal Control, Division of Research and Statistics, Cheyenne, Wyoming.

[1]Average based on the first nine months of 1981.

and the state's as a whole. Specifically, Sublette County has experienced unemployment rates below the state average while Lincoln County has experienced rates greater than the state's average from 1976 to 1981.

The Sublette County unemployment rates most likely reflect frictional unemployment. (Frictional unemployment is that unemployment caused by workers moving from one job to another.) Thus Sublette County's unemployment can not be expected to drop below rates experienced in the recent past. Under this condition, any economic development in the county will demand in-migrant labor. Undoubtedly, a low unemployment rate enhances the quality of life of local residents.

Lincoln County's unemployment rate has consistently been larger than the state's in each year from 1976 to 1981. Economic growth in the area could have the effect of lowering the unemployment rate if local labor is hired.

Divorce

There are many potential explanatory variables for differential divorce rates. Religion, changing sex roles, ethnicity, and state laws being but a few. The causal link between divorce and economic development is not implied or assumed here. Divorce rates are presented only for comparison to the state norm. The general value attached to divorce rates is that the lower the divorce rate the greater the quality of life and social well-being.

Table 3.2.5-3 shows the number of divorces and rate per 1,000 population for Sublette County, Lincoln County, and the State of Wyoming from 1976 to 1980. It should be pointed out that the rates reported by the State of Wyoming are based on population, not total marriages. Thus the data can be distorted due to peculiar demographic characteristics in the population.

Infant Mortality

Infant mortality is an accepted measure of development or adequacy of medical services. Caution should be used in comparing rates based on a small number of incidents with state or national rates, however. Table 3.2.5-4 represents infant mortality for Sublette County, Lincoln County, and the State of Wyoming from 1976 to 1980. As can be noted, the number of actual infant deaths is quite small in both counties. The data for Sublette County is inconclusive at best. The lack of infant deaths in Sublette County in certain years is probably a reflection of the fact that there is no hospital within the county; sick infants must be taken outside the county.

Lincoln County infant mortality rates approximate the state rate. No trends can be established in the infant mortality rates for the county because of the small number of cases involved.

It can be expected that with better health care facilities and trained personnel, infant mortality can be kept at a minimum in the future.

TABLE 3.2.5-3

NUMBER OF DIVORCES FOR SUBLETTE COUNTY,
LINCOLN COUNTY, AND THE STATE OF WYOMING, 1976-1980[1]

	1976	1977	1978	1979	1980[2]
Sublette County	22	18	15	31	21
Rate/1,000 Population	5.3	4.2	3.4	7.0	4.6
Lincoln County	37	45	44	66	70
Rate/1,000 Population	3.7	4.1	3.9	5.8	5.7
State of Wyoming	2,850	3,068	3,130	3,510	4,003
Rate/1,000 Population	7.2	7.2	7.1	7.7	8.5

Source: Department of Health and Social Services, State of Wyoming and Wyoming Data Handbook 1981, Department of Administration and Fiscal Control, Division of Research and Statistics, Cheyenne, Wyoming.

[1]County of occurrence.

[2]Provisional.

TABLE 3.2.5-4

INFANT MORTALITY FOR SUBLETTE COUNTY
LINCOLN COUNTY, AND THE STATE OF WYOMING, 1976-1980

	1976	1977	1978	1979	1980
Sublette County					
Number	0	0	1	3	0
Rate/Live Births	-	-	0.014	0.032	-
Lincoln County					
Number	5	3	4	5	4
Rate/Live Births	0.019	0.011	0.012	0.015	0.010
State of Wyoming					
Number	121	115	113	129	104
Rate/Live Births	0.016	0.014	0.013	0.013	0.010

Source: Bruce Infeld, Department of Health and Social Services, Division of Health and Medical Services, November, 1982. Personal communication with Gary Williams, Western Research Corporation.

Mental Health

Mental health indices are difficult to interpret because of the subjective nature of the diagnosis. A measure of the total number of instances in which mental health services were provided are reported for Sublette and Lincoln counties. The total number of instances refer to the total number of times people sought treatment from mental health centers in the county. These numbers include repeaters as well as one-time visitors.

Table 3.2.5-5 presents the total number and rate of mental health instances in Sublette and Lincoln counties from 1980 to 1982. As can be noted, Sublette County's data is inconclusive. Lincoln County shows a steady increase in both the absolute number and rate of treatment. With development, one could expect the absolute number of treatments to increase but not necessarily the rate of utilization to increase.

Crime

Crime rates have numerous problems when used for social research. One of the main problems with crime statistics is that they are usually based on reported offenses, not convictions. Reporting inconsistencies both within a given department and between a department and the Uniform Crime Reporting system also can distort actual crime rates. These two factors together can significantly alter the validity of reported crime statistics. Also basing crime rates on small numbers of crimes and looking at percent change in rates over time can give a distorted view of changes in crime.

Table 3.2.5-6 shows total Part I reported crimes and crime rates for Sublette County, Lincoln County, and the State of Wyoming from 1979 to 1981. Sublette County's crime rate has increased by 103 percent from 1979 to 1981. With this increase, the rate is still slightly below the statewide rate. Lincoln County's rate has also been increasing (77 percent from 1979 to 1981). Lincoln County's crime rate for Part I offenses is also below the statewide crime rate. These increasing crime rates could be as much a function of increased population size and density as expansion of existing police and sheriff's departments. Caution is recommended in interpreting such rates. The important factor to be assessed is whether local perception of crime has affected the local perception of quality of life and social well-being.

3.3 COMPONENT ALTERNATIVES

Based on the information currently available, none of the component alternatives is expected to produce any significant effect on the socioeconomic analysis with the possible exception of employee housing. The development of employee housing in proximity to the Sublette County plant sites could function to concentrate socioeconomic impacts in a smaller area of site influence. The probable net effect of this alternative would be to eliminate the Town of Granger in Sweetwater County from the area of site influence.

TABLE 3.2.5-5

TOTAL NUMBER OF INSTANCES MENTAL HEALTH SERVICES
WERE PROVIDED IN SUBLETTE AND LINCOLN COUNTIES

	FY80	FY81	FY82
Sublette County			
Number	124	251	127
Rate/1,000 Population	2.73	5.52	2.79
Lincoln County			
Number	276	404	421
Rate/1,000 Population	2.46	3.32	3,46

Source: State Mental Health Office, Cheyenne, Wyoming.

TABLE 3.2.5-6

TOTAL PART I[1] REPORTED CRIMES AND CRIME RATES IN SUBLETTE COUNTY, LINCOLN COUNTY, AND THE STATE OF WYOMING, 1979-1981

	1979	1980	1981	% Change in Rate 1979-1981
Sublette County				
Number	91	178	171	
Rate/1,000 Population	24.5	39.1	49.9	+103.6%
Lincoln County				
Number	231	336	408	
Rate/1,000 Population	23.5	27.6	41.6[2]	+ 77.0%
State of Wyoming				
Number	21,839	22,502	24,695	
Rate/1,000 Population	49.3	47.9	50.5	+ 2.4%

Source: "Crime in Wyoming 1981 Summary Report", "Crime in Wyoming 1980 Summary Report", "Crime in Wyoming 1979 Summary Report", State of Wyoming, Office of Attorney General, Uniform Crime Reporting, Center for Criminal Justice Research.

[1]Part I crimes are classified by the FBI and include murder, negligent manslaughter, rape, robbery, aggravated assault, simple assault, burglary, and motor vehicle theft.

[2]This figures was calculated excluding the agencies with less than twelve months on file.

3.4 BUCKHORN ALTERNATIVE

Based on the information currently available, development of the Riley Ridge Project under the Buckhorn alternative would not generate any difference in the delineation of the affected socioeconomic environment compared to the proposed action.

3.5 SHUTE CREEK ALTERNATIVE

Based on information currently available, development of the Riley Ridge Project under the Shute Creek alternative would not produce any significant differences in the delineation of the affected socioeconomic environment compared to the proposed action.

3.6 NORTHERN ALTERNATIVE

Based on the information currently available, development of the Riley Ridge Project under the Northern alternative would not produce any differences in the delineation of the affected socioeconomic environment compared to the proposed action.

CHAPTER 4

ENVIRONMENTAL CONSEQUENCES

4.1 INTRODUCTION

Subsequent sections of this chapter describe the socioeconomic changes expected in the affected environment assuming the Riley Ridge Project is developed under the proposed action or any of the alternative development plans. A description of the scope of the affected socioeconomic environment, how it was delineated, and the baseline is presented in Chapter Three. The methods utilized to generate projections of social and economic parameters are the same as those briefly described in Section 3.1 and detailed in the appendix to this document.

A thorough analysis was completed for all of the entities in the socioeconomic study area. All public and human service areas were evaluated for each entity. However, only those services and/or facilities which are expected to be significantly impacted (based on the significance criteria described below) are reported in detail.

4.1.1 SOCIOECONOMIC SIGNIFICANCE CRITERIA

In addition to the ten percent or greater population growth threshold used to determine which counties, incorporated communities, and school districts would be included in the socioeconomic study area, the following significance criteria were used in the socioeconomic analysis.

Population

Significant population impacts include changes in both magnitude and composition over time. By definition, all communities included in this analysis are expected to experience significant effects in terms of the magnitude of population growth (i.e., the ten percent growth threshold per year), but the severity of this impact will vary among communities given the total change (degree in excess of ten percent) and the duration of the increased population levels over time.

Changes in population composition are considered significant if the projected racial, ethnic, or age/sex characteristics of the incoming population differ by ten percent or more from the characteristics of the existing population.

Employment and Income

Employment impacts considered significant include the following:

- Shifts among standard industrial sectors (1-digit SIC) that reflect overall changes in the structure of the economic base.
- Changes in unemployment for the total population such that the respective unemployment rate exceeds the 1982 state average.

Increases in per capita income for the county that are disproportionate to increases for the state as experienced from 1970 through 1980.

Housing

The most obvious indicator of the significance of impacts on housing will be the shortage of available units relative to projected demand. At the most basic level, any projected shortage within any year given a vacancy rate of 3.5 percent or less will be considered significant.

Public Services and Facilities, Human Services and Facilities, and Public Finance

As a general guideline, the impact on public and human services was considered significant if the increased needs in the peak construction year were 25 percent greater than needs in that year for the baseline. Common sense was used in applying the above criteria, i.e., if an impact did not meet the above criteria but the analysts still judged the impact to be significant, the service was included in the analysis.

Additionally, any impact was considered significant which exceeded the fiscal capacity of the affected taxing jurisdiction to provide services and facilities within the necessary time frame, given all available sources of funding (e.g., normal revenue sources and federal and state loans and grants).

4.2 PROPOSED ACTION

4.2.1 GENERAL ECONOMIC CONDITIONS AND POPULATION CHARACTERISTICS IN SOUTHWESTERN WYOMING UNDER THE PROPOSED ACTION

Employment

Net projected effects on employment opportunities associated with the Riley Ridge Project under the proposed action are discernible when a comparison is made of the total projected economy with and without the project. Tables 4.2.1-1, 4.2.1-2, and 4.2.1-3 summarize the direct and indirect employment opportunity effects of the project proposed action development for Lincoln, Sublette, and Sweetwater counties, respectively. The total direct and indirect impact of the Riley Ridge Project results in 102 new jobs in 1983 (see the schedule discussion in Section 1.2) in the three county region, and by 1990 the total impact is 2,151 additional jobs in the region. The maximum impact occurs in 1985, with 4,762 additional jobs across all three counties. Between 32 percent and 43 percent of the total impact in new jobs from 1983 to 1990 for the region are indirect employment opportunities. The methodology for estimating indirect employment is described in the technical appendix.

The major effects of the Riley Ridge Project on employment opportunities are found in the mining, construction, manufacturing, and transportation, communications, and public utilities sectors. The greatest impact on mining employment is found in Sublette County, where the growth changes from a 33 percent decrease from 1982 to 1990 for the baseline, to a 27 percent increase

TABLE 4.2.1-1

PROJECTED ANNUAL EMPLOYMENT OPPORTUNITIES IN LINCOLN COUNTY ASSOCIATED WITH THE DEVELOPMENT OF THE RILEY RIDGE PROJECT UNDER THE PROPOSED ACTION FOR THE PERIOD 1982 TO 2000

Category	1982	1983	1984	1985	1986	1987
Proposed Action Impact						
Direct Employment						
Mining	0	12	73	134	143	146
Construction	0	11	263	1,115	1,148	271
Manufacturing	0	0	0	17	117	145
Transportation, Communications, and Public Utilities	0	0	1	9	43	46
Total Direct Employment	0	23	337	1,275	1,451	608
Total Indirect Employment	0	22	328	1,239	1,380	549
Total Net Employment Opportunities	0	45	665	2,514	2,831	1,157

TABLE 4.2.1-1 (CONTINUED)

Category	1988	1989	1990	1995	2000
Proposed Action Impact					
Direct Employment					
Mining	148	150	98	93	93
Construction	208	306	146	0	0
Manufacturing	152	174	192	225	225
Transportation, Communications, and Public Utilities	47	49	52	57	57
Total Direct Employment	555	679	488	375	375
Total Indirect Employment	496	611	420	301	301
Total Net Employment Opportunities	1,051	1,290	908	676	676

Source: Western Research Corporation; Laramie, Wyoming, 1982.

TABLE 4.2.1-2

PROJECTED ANNUAL EMPLOYMENT OPPORTUNITIES IN SUBLETTE COUNTY ASSOCIATED WITH THE DEVELOPMENT OF THE RILEY RIDGE PROJECT UNDER THE PROPOSED ACTION FOR THE PERIOD 1982 TO 2000

Category	1982	1983	1984	1985	1986	1987
Proposed Action Impact						
Direct Employment						
Mining	0	23	155	274	292	298
Construction	0	12	392	899	615	398
Manufacturing	0	0	0	37	131	211
Transportation, Communications, and Public Utilities	0	0	3	8	35	44
Total Direct Employment	0	35	550	1,218	1,073	951
Total Indirect Employment	0	9	148	325	279	240
Total Net Employment Opportunities	0	44	698	1,543	1,352	1,191

TABLE 4.2.1-2 (CONTINUED)

Category	1988	1989	1990	1995	2000
Proposed Action Impact					
Direct Employment					
Mining	301	307	204	182	182
Construction	403	436	285	0	0
Manufacturing	235	301	358	456	456
Transportation, Communications, and Public Utilities	47	48	50	50	50
Total Direct Employment	986	1,092	897	688	688
Total Indirect Employment	247	272	216	154	153
Total Net Employment Opportunities	1,233	1,364	1,113	842	841

Source: Western Research Corporation; Laramie, Wyoming, 1982.

TABLE 4.2.1-3

PROJECTED ANNUAL EMPLOYMENT OPPORTUNITIES IN SWEETWATER COUNTY ASSOCIATED WITH THE DEVELOPMENT OF THE RILEY RIDGE PROJECT UNDER THE PROPOSED ACTION FOR THE PERIOD 1982 TO 2000

Category	1982	1983	1984	1985	1986	1987
Proposed Action Impact						
Direct Employment						
Mining	0	3	18	35	38	38
Construction	0	4	77	346	364	80
Manufacturing	0	0	0	0	3	3
Transportation, Communications, and Public Utilities	0	0	0	0	1	1
Total Direct Employment	0	7	95	381	406	122
Total Indirect Employment	0	6	81	324	345	103
Total Net Employment Opportunities	0	13	176	705	751	225

TABLE 4.2.1-3 (CONTINUED)

Category	1988	1989	1990	1995	2000
Proposed Action Impact					
Direct Employment					
Mining	38	39	25	26	26
Construction	59	90	41	0	0
Manufacturing	3	3	3	3	3
Transportation, Communications, and Public Utilities	1	1	2	2	2
Total Direct Employment	101	133	71	31	31
Total Indirect Employment	85	113	59	25	25
Total Net Employment Opportunities	186	246	130	56	56

Source: Western Research Corporation; Laramie, Wyoming, 1982.

in available mining jobs with the proposed action. The growth in mining jobs in Lincoln County is increased by about 7 percent under the proposed action compared to the baseline, and the growth in jobs in the mining sector for Sweetwater County is essentially unchanged.

The expected overall reductions from 1982 to 1990 in total construction sector jobs in Lincoln and Sweetwater counties are slowed by the proposed action of the Riley Ridge Project, with declines of 28 and 10 percent, respectively, under the baseline to overall decreases of 5 percent and 9 percent. The growth in construction jobs in Sublette County is expected to change from 14 percent under the baseline to over 111 percent with the proposed action.

There is essentially no change expected in the level of employment opportunities in the manufacturing sector in Sweetwater County as a result of the proposed action; however, significant changes in growth are projected for Lincoln and Sublette counties. In Sublette County, where very little manufacturing currently takes place, total employment opportunities in this sector are estimated to increase by 456 jobs by 2000, a 1,012 percent increase over the expected number of jobs under the baseline. In Lincoln County, manufacturing jobs are expected to increase by about 240 by 2000, an approximate 30 percent increase over the number of jobs projected under the baseline.

No major changes are projected for Sweetwater County in the number of jobs in the transportation, communications, and public utilities sector as a result of the Riley Ridge Project, but again significant changes are expected to occur in Lincoln and Sublette counties where the majority of the impact is located. The increase in employment opportunities in this sector is estimated to be approximately 90 jobs and 72 jobs in Lincoln and Sublette counties, respectively, by 2000, enough to increase the total growth from 1982 levels by approximately 17 percent and 52 percent, respectively.

Personal Earnings

Net projected personal earnings (in constant 1980 dollars) under the proposed action are presented in Table 4.2.1-4 for Lincoln, Sublette, and Sweetwater counties for the period 1982 to 2000. Constant dollar earnings in Lincoln County show an increase of nearly 15 percent from 1982 to 2000 with the proposed action in addition to the 18 percent increase expected without the Riley Ridge Project. Personal earnings with the project are estimated to increase from $107.2 million in 1982 to $142.9 million in 2000. This is an increase in projected earnings for that year of nearly 33 percent over the estimate for 1982. The total net impact in constant 1980 dollar earnings from 1983 through 1990 is projected to be about $295 million.

The most significant impact on projected personal earnings under the proposed action is found in Sublette County. Under the proposed action, projected total personal earnings increase from approximately $34.8 million in 1982 to over $56.6 million in 2000, an increase of nearly 63 percent for the period. A slight decrease in total personal earnings was projected in Sublette County for the same period under the baseline. Total constant dollar earnings peak at approximately $86.4 million in 1985, resulting in a positive net impact of

TABLE 4.2.1-4

PROJECTED IMPACT ON ANNUAL PERSONAL EARNINGS IN THOUSANDS OF CONSTANT 1980 DOLLARS FOR LINCOLN, SUBLETTE, AND SWEETWATER COUNTIES UNDER THE PROPOSED ACTION

	1982	1983	1984	1985	1986	1987
Proposed Action Impact						
Lincoln County	0	1,416	20,430	70,260	78,571	32,851
Sublette County	0	1,502	23,824	52,136	44,937	38,711
Sweetwater County	0	410	5,469	21,565	24,623	7,826

	1988	1989	1990	1995	2000
Proposed Action Impact					
Lincoln County	29,581	36,508	25,133	16,134	16,177
Sublette County	39,851	43,544	34,603	23,665	23,662
Sweetwater County	6,242	8,619	4,566	1,499	1,502

Source: Western Research Corporation; Laramie, Wyoming, 1982.

nearly $52.1 million for that year alone. This is an increase of approximately 151 percent in personal earnings for Sublette County in 1985 over the projected level under the baseline. Net increases in personal earnings for Sublette County will total over $279 million (in constant dollars) from 1983 through the year 1990 with the proposed action.

As indicated previously, no large relative impact is expected to occur in Sweetwater County under the proposed action. Total personal earnings (in 1980 dollars) are projected to increase from approximately $471.7 million in 1982 to about $611.4 million in 2000. This is an increase in earnings of about 30 percent over these years, compared to an estimated 29 percent increase in constant dollar earnings under the baseline. Thus, total personal earnings are not expected to increase by more than 1 percent in 2000 over that level projected for Sweetwater County under the baseline as a result of the proposed action. Over 8 percent of the estimated net impact in increased earnings under the proposed action for Sweetwater County is expected to occur in the Town of Granger. A peak net impact of approximately $24.6 million is estimated for Sweetwater County in 1986, an increase of about 5 percent in projected personal earnings over the baseline.

Labor Force

Projected mean annual labor force, employment, unemployment, and unemployment rates for Lincoln, Sublette, and Sweetwater counties from 1982 to 2000 under the proposed action are presented in Table 4.2.1-5. The total labor force is expected to increase by 9.5 percent due to the proposed action in Lincoln County between 1982 and 2000 in addition to an estimated 14 percent increase in the baseline. The rate of unemployment is expected to decrease to about 4.8 percent during the construction period (1983 to 1986), compared to an estimated rate of 6.5 percent with the baseline.

The total labor force in Sublette County is expected to increase by almost 37 percent between 1982 and 2000 under the proposed action compared to less than a 1 percent increase in the baseline. The level of unemployment under the proposed action is estimated at 2.2 percent during the construction phase, while in the baseline unemployment is estimated at 3.3 percent during most of these years.

Few changes in labor force patterns are expected in Sweetwater County as a result of the proposed action. The total labor force is projected to increase by approximately 40 percent from 1982 to 2000 with the proposed action, compared to approximately 39.7 percent in the baseline. The primary difference in Sweetwater County is a very slight increase in the absolute level of unemployment in the late 1980s as construction activities are completed under the proposed action as compared to the baseline.

The regional construction sector will experience the most change in employment opportunities as the project construction builds to a peak in 1985 and 1986. Construction jobs will then decline to about the current (1982) level in 1990. The effects of increased employment and then unemployment in this sector are in part offset by changes throughout the total labor force as shown in Table 4.2.1-5.

TABLE 4.2.1-5

PROJECTED IMPACT ON ANNUAL AVERAGE LABOR FORCE, EMPLOYMENT, UNEMPLOYMENT, AND UNEMPLOYMENT RATES FOR LINCOLN, SUBLETTE, AND SWEETWATER COUNTIES FOR 1982 TO 2000 UNDER THE PROPOSED ACTION[1]

Category	1982	1983	1984	1985	1986	1987
Proposed Action Impact						
Labor Force						
Lincoln	0	0	445	1,909	2,161	968
Sublette	0	18	654	1,502	1,332	1,174
Sweetwater	0	0	165	651	703	211
Employment						
Lincoln	0	34	506	1,912	2,161	891
Sublette	0	42	664	1,469	1,288	1,136
Sweetwater	0	12	158	634	674	202
Unemployment						
Lincoln	0	-34	-61	-10	0	77
Sublette	0	-24	-10	33	44	38
Sweetwater	0	-12	9	17	29	9
Annual Average Unemployment Rate - %						
Lincoln	0.0	-0.5	-1.4	-1.7	-1.7	0.3
Sublette	0.0	-1.1	-1.1	0.0	0.0	0.0
Sweetwater	0.0	0.0	0.0	0.0	0.0	0.0

TABLE 4.2.1-5 (CONTINUED)

Category	1988	1989	1990	1995	2000
Proposed Action Impact					
Labor Force					
Lincoln	871	934	752	565	567
Sublette	1,217	1,314	1,110	833	833
Sweetwater	214	218	191	56	53
Employment					
Lincoln	809	994	705	530	530
Sublette	1,178	1,302	1,064	806	806
Sweetwater	167	221	117	51	51
Unemployment					
Lincoln	62	-60	47	35	37
Sublette	39	12	46	27	27
Sweetwater	47	- 3	74	5	2
Annual Average Unemployment Rate - %					
Lincoln	0.1	-1.6	0.0	0.0	0.0
Sublette	0.0	-0.9	0.4	0.0	0.0
Sweetwater	0.1	0.0	0.3	0.0	0.0

Source: Western Research Corporation; Laramie, Wyoming, 1982.

[1]These figures are calculated relative to the baseline. Therefore, negative impacts on unemployment and the unemployment rate are indicative of reductions in those factors.

Population

Population projections for both the baseline and the proposed action were prepared for Fremont, Teton, Uinta, Lincoln, Sublette, and Sweetwater counties in order to aid in determining the region of influence for the Riley Ridge Project. The population increases due to the project in its peak years, 1985 and 1986, were insignificant in Fremont (3 percent), Teton (4 percent), and Uinta (3 percent) counties and their political subdivisions (each less than 10 percent). Lincoln County's peak population impact is expected to be above the 10 percent significance criteria at 37 percent. The highest percentage peak population increase (66 percent) is projected to occur in Sublette County. While overall, the peak population impact in Sweetwater County (3 percent) will be under the significance criteria, Granger is expected to grow significantly in the peak year (61 percent) which results in including Sweetwater County government and Granger in the analysis.

Table 4.2.1-6 presents the annual population projections due to the proposed action for Lincoln, Sublette, and Sweetwater counties.

Northwest Pipeline's proposed man camp was incorporated into the population analysis in the following manner. The interpretation of the rural to urban population distribution of the total project (including Northwest Pipeline) direct and indirect population is important in the treatment of the man camp. A rural to urban weighting procedure using the 1980 town population to total County Census Division (CCD) urban population ratio times the total CCD population along with the town's distance from each proposed project site determined the portion of the project-related population which would be in the urban center or in the rural area near the town.

In this procedure, the change in Lincoln County's rural population due to the project is not identified to any specific location but its magnitude is influenced by the distance each urban center is from the project activity sites. Family status direct population and all indirect population were then assumed to locate within the current boundaries of or adjacent to incorporated towns. This assumption reflects the service, trade, housing supply, and governmental infrastructure presently available to support growth within the county. Further, the proposed man camp was assumed to be comprised of single status employees, located in the rural area of the county on the plant site, and made up of facilities similar to other man camps currently operating in or planned for Wyoming.

The Northwest Pipeline average annual plant construction work force is 7 (1983), 35 (1984), 512 (1985), 825 (1986), and 108 (1987). The use of an average annual work force is required as opposed to the use of a peak work force in order to be consistent with all other employment and population data. Using either of two assumptions of (1) the 1980 Census ratio of 20 percent non-family households in Lincoln County or (2) the 51 percent of construction workers in non-family households (Mountain West, 1975), the change in rural population as defined allows for concentrating Northwest Pipeline non-family households in a man camp. On an average annual basis, the man camp could range from 165 (20 percent) to 421 (51 percent) workers during the peak year of construction in 1985. In addition to the Northwest Pipeline workers in the

TABLE 4.2.1-6

PROJECTED PROPOSED ACTION POPULATION IMPACT WITHIN THE RILEY RIDGE STUDY AREA

LOCATION	1982	1983	1984	1985	1986	1987
LINCOLN COUNTY	0	0	1089	4656	5292	2371
AFTON TOWN	0	0	5	19	20	11
THAYNE TOWN	0	0	2	6	6	4
DIAMONDVILLE TOWN	0	0	151	1001	1267	359
KEMMERER TOWN	0	0	299	1794	2228	693
LA BARGE TOWN	0	0	478	1206	1064	971
COKEVILLE TOWN	0	0	15	57	62	32
RURAL	0	0	139	573	643	300
FRONTIER AREA	0	0	28	99	100	58
OPAL AREA	0	0	19	68	68	40
CONSTRUCTION CAMP	0	0	7	102	165	22
SUBLETTE COUNTY	0	38	1391	3197	2831	2498
BIG PINEY TOWN	0	10	366	836	737	657
MARBLETON TOWN	0	9	337	771	681	605
PINEDALE TOWN	0	2	67	160	146	121
RURAL	0	17	621	1430	1267	1116
CALPET AREA	0	0	17	38	33	30
DANIEL AREA	0	0	9	23	20	17
SWEETWATER COUNTY	0	0	330	1302	1407	422
GRANGER TOWN	0	0	21	102	118	28
GREEN RIVER CITY	0	0	127	510	555	163
ROCK SPRINGS CITY	0	0	112	426	454	142
SOUTH SUPERIOR TOWN	0	0	9	32	33	11
WAMSUTTER TOWN	0	0	5	15	15	6
RURAL	0	0	56	217	233	72

(CONTINUED ON NEXT PAGE)

TABLE 4.2.1-6

PROJECTED PROPOSED ACTION POPULATION IMPACT WITHIN THE RILEY RIDGE STUDY AREA (CONTINUED)

LOCATION	1988	1989	1990	1995	2000
LINCOLN COUNTY	2133	2286	1841	1383	1388
AFTON TOWN	11	11	9	7	7
THAYNE TOWN	4	4	4	3	3
DIAMONDVILLE TOWN	273	344	244	201	202
KEMMERER TOWN	551	666	488	392	394
LA BARGE TOWN	990	940	835	586	588
COKEVILLE TOWN	30	31	26	19	19
RURAL	273	290	235	176	176
FRONTIER AREA	58	62	50	38	38
OPAL AREA	39	42	34	26	26
CONSTRUCTION CAMP	0	0	0	0	0
SUBLETTE COUNTY	2590	2795	2361	1773	1773
BIG PINEY TOWN	682	735	621	466	466
MARBLETON TOWN	627	677	572	429	429
PINEDALE TOWN	125	135	114	86	86
RURAL	1157	1248	1054	792	792
CALPET AREA	31	33	28	21	21
DANIEL AREA	18	19	16	12	12
SWEETWATER COUNTY	429	436	383	113	104
GRANGER TOWN	27	29	24	7	7
GREEN RIVER CITY	165	169	148	44	40
ROCK SPRINGS CITY	146	147	130	38	35
SOUTH SUPERIOR TOWN	12	12	10	3	3
WAMSUTTER TOWN	6	6	5	2	1
RURAL	73	74	65	19	18

SOURCE: WESTERN RESEARCH CORPORATION; LARAMIE, WYOMING (1982)

camp, there would be an additional 90 (51 percent) to 445 (20 percent) Riley Ridge project-related population scattered throughout the rural areas of Lincoln County whose residential location cannot be precisely estimated. Since the precise mix of family and non-family households which will be attracted by the total project including Northwest Pipeline can vary, the 1980 Census mix of household types was assumed for population forecasting in order to reflect the most significant potential impacts on the local socioeconomic infrastructure. This assumption is changed to 100 percent of Northwest Pipeline's average annual work force for the housing demand analysis. The rationale for varying this assumption in the population and housing analyses is discussed in detail in the technical appendix.

The total population of Lincoln County is projected to increase by nearly 10 percent from 1982 to 2000 as a result of the proposed action in addition to an expected increase of approximately 20 percent in the baseline. This is not a continuous growth in population, however. Between 1982 and 1986 the county population (baseline and proposed action) increases by nearly 38 percent, peaking in 1986 at 19,625 people, and then decreasing by about 13 percent from 1986 to 1995.

During the peak impact year in Lincoln County (1986), the population increase (Table 4.2.1-6) due to the proposed action compared with the baseline (Table 3.2.1-8) is as follows: Afton - 1 percent, Thayne - 2 percent, Diamondville - 108 percent, Kemmerer - 58 percent, LaBarge - 301 percent, Cokeville - 10 percent, and the total rural areas (including those towns such as Opal which were unincorporated at the time of the study and Northwest Pipeline's proposed man camp) - 10 percent. Under the criteria specified, the peak impacts on Afton, Thayne, Cokeville, and the collective rural area were insignificant and these population centers deleted from further analysis.

The major change in the population distribution within Lincoln County in 2000 from that observed under the baseline is the increase in the population of the Town of LaBarge. Under the baseline LaBarge accounts for about 2.5 percent of the county population compared to about 5 percent of the total county population in 2000 under the proposed action. In the peak year of population growth (1985) La Barge accounts for over 7 percent of the total county population. This is an increase (1,206) of approximately 345 percent in the population of this town compared to the estimated population in 1985 (350) under the baseline. The total population increase for LaBarge from 1982 to 1985 is estimated at 351 percent. Following this peak, the population declines such that the increase from 1982 to 2000 is 189 percent.

Projected population for Sublette County also exhibits significant increases in growth compared to the expected rates under the baseline. Total county population is expected to increase by about 39 percent from 1982 to 2000 under the proposed action, compared to a 2 percent growth expected under the baseline. The proposed action population increase in 1985 (the peak year) is estimated at 3,197 people, resulting in an increase of approximately 66 percent over the total projected population in 1985 under the baseline (4,809). The growth in projected population in Sublette County under the proposed action is not a continuous increase, but like Lincoln County, exhibits a significant increase between 1982 and the peak year (1985), and

then a decrease in total population from 1985 (8,006) to 1995 (6,447) following project construction and stabilization with the operational phase. Total county population is projected to increase by nearly 68 percent from 1982 to 1985, and then decrease by approximately 19 percent by 1995.

The peak population impact year in Sublette County is 1985. The population increase in that year (Table 4.2.1-6) due to the proposed action compared with the baseline (Table 3.2.1-8) is as follows: Big Piney - 149 percent, Marbleton - 136 percent, Pinedale - 14 percent, and the total rural area (including Calpet and Daniel) - 56 percent. Although total rural area is expected to have impacts greater than 10 percent, its components are not addressed individually since most impacts are expected in the areas near Big Piney and Marbleton. These impacts are, however, addressed in the county level analysis since the county provides the public services in each of the rural areas.

The towns of Big Piney and Marbleton experience the greatest degree of impact in population growth under the proposed action compared to the baseline, increasing in population from 1982 to 1985 by approximately 150 percent and 137 percent, respectively. Thus, in 1985 each of these towns is expected to account for approximately 17 percent of the county population under the proposed action compared to about 12 percent each under the baseline. In 1995, each town will remain about 16 percent of the county population. Pinedale is projected to receive about 5 percent of the project impact on Sublette County. In 1986, this population is expected to be 160, 144 in 1990 and 86 in 2000.

The project's peak population impact upon Sweetwater County occurs in 1986 under the proposed action. The population increase associated with this alternative (Table 4.2.1-6) in comparison with the baseline (Table 3.2.1-8) is as follows: Sweetwater County - 3 percent, Granger - 61 percent, Green River - 4 percent, Rock Springs - 2 percent, South Superior - 5 percent, Wamsutter - 2 percent, and total rural area - 3 percent. As a result, only Granger is considered significant for further analysis.

As indicated, expected peak population impacts in Sweetwater County under the proposed action are minimal (3 percent), with total county population growth from 1982 to 1986 (the peak impact years) estimated at 7.2 percent compared to a projected 3.9 percent under the baseline. The major relative impact in Sweetwater County under the proposed action is expected to occur in the town of Granger, where total population growth is estimated at approximately 68 percent from 1982 to 1986 compared to the 4 percent increase projected under the baseline. The total net population impact for Granger under this alternative is estimated at 118 people in 1986 (the peak year), which is 61 percent higher than the population projected for that year without project development. The project-related growth in Granger will stabilize at about 28 people from 1987 through 1990 and drop to only 7 residents after 1995. As is shown on Table 4.2.1-6, no significant changes are expected to occur in the distributions and relative sizes of the populations in Sweetwater County under the proposed action compared to the baseline.

Population projections to the year 2000 indicate a decreasing level of net impacts after 1990 in all three counties. This downward trend stabilizes by 1995, with net impacts in population remaining very constant to the year 2000.

As was noted in Section 3.2.1, the age and sex characteristics of the population in each of the three counties is expected to remain essentially unchanged from 1980 to 1990 under the baseline. With the proposed action, the characteristics of the population in Sweetwater County will not change given the limited impacts expected there. In Lincoln and Sublette counties (Table 4.2.1-7) the changes may be more noticeable but are not expected to be significant. In the peak construction years, the relative concentration of individuals in the 20 to 34 year old group will be about 30 percent compared to 25 percent in the baseline for an increase of approximately 2 percent in this age group's relationship to the total population. The higher percentage of people in this age group is compensated for by a lower percentage distribution throughout the younger and older age groups.

In summary, the agricultural, mining, and tourist industries will continue to play a major role in the economies of these three counties under the proposed action. The major effects of the project occur in the mining, construction, manufacturing, and transportation sectors. As a result, some of the other major sectors, particularly the agricultural sector in Lincoln and Sublette counties, will decrease in relative size as a provider of total jobs to the region. As energy development activities continue to expand in the Overthrust Belt region, possible complications may arise in current agricultural production practices as a result of increased labor demands by the mining sector in the rural labor market in these two counties. The effect on agriculture will depend on the magnitude of the increased demand for labor and the worker attributes desired by the new industry (Murdock and Leistritz 1979). In addition, the new jobs created in the local trade and service sectors will also increase the demand for labor. Available evidence has suggested that agriculture may have to pay higher wage rates and adjust to changes in the availability of labor, particularly operators of large farms and ranches who rely heavily on hired workers.

It is anticipated that recreation and the travel/tourism industry will play an increasing and lasting role in the economies of the region. It is important that the additional pressures put on these resources as a result of the Riley Ridge Project be considered. The Wyoming Recreation Commission has already expressed their concern over the serious shortage of recreation areas and facilities in the region of these three counties (Wyoming Recreation Commission 1980). As excess demand persists, the costs of recreation are eventually levied unintentionally and inadvertently on unrelated economic groups. Both the state and private enterprise should be encouraged to provide the resources needed to meet this growing demand.

The major impacts under the proposed action (in terms of actual numbers) occur in Lincoln County, but the largest relative impacts (percentages) occur in Sublette County. The maximum impacts from the Riley Ridge development occur in 1985 and 1986. The areas expected to experience the greatest degree of population impacts are the towns of LaBarge in Lincoln County, Big Piney and Marbleton in Sublette County, and the town of Granger in Sweetwater County.

TABLE 4.2.1-7

PROJECTED PROPOSED ACTION IMPACT ON POPULATION DEMOGRAPHICS

CATEGORY	1982	1983	1984	1985	1986	1987
LINCOLN COUNTY						
0 TO 4 YEARS	0	0	131	559	635	285
5 TO 19 YEARS	0	0	286	1225	1392	624
20 TO 34 YEARS	0	0	332	1420	1614	723
35 TO 54 YEARS	0	0	206	880	1000	448
55 YEARS AND OLDER	0	0	134	573	651	292
TOTAL POPULATION IMPACT	0	0	1089	4656	5292	2371
SUBLETTE COUNTY						
0 TO 4 YEARS	0	5	167	384	340	300
5 TO 19 YEARS	0	10	366	841	745	657
20 TO 34 YEARS	0	12	424	975	863	762
35 TO 54 YEARS	0	7	263	604	535	472
55 YEARS AND OLDER	0	5	171	393	348	307
TOTAL POPULATION IMPACT	0	38	1391	3197	2831	2498

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TABLE 4.2.1-7

PROJECTED PROPOSED ACTION IMPACT ON POPULATION DEMOGRAPHICS (CONTINUED)

CATEGORY	1988	1989	1990	1995	2000
LINCOLN COUNTY					
0 TO 4 YEARS	256	274	221	166	167
5 TO 19 YEARS	561	601	484	364	365
20 TO 34 YEARS	651	697	562	422	423
35 TO 54 YEARS	403	432	348	261	262
55 YEARS AND OLDER	262	281	226	170	171
TOTAL POPULATION IMPACT	2133	2286	1841	1383	1388
SUBLETTE COUNTY					
0 TO 4 YEARS	311	335	283	213	213
5 TO 19 YEARS	681	735	621	466	466
20 TO 34 YEARS	790	852	720	541	541
35 TO 54 YEARS	490	528	446	335	335
55 YEARS AND OLDER	319	344	290	218	218
TOTAL POPULATION IMPACT	2590	2795	2361	1773	1773

SOURCE: WESTERN RESEARCH CORPORATION; LARAMIE, WYOMING (1982)

4.2.2 HOUSING

The difference between total housing demand projections for the proposed action and the baseline are considered to be the impact of the Riley Ridge Project. The projection procedure balances housing type preferences and costs (ability to secure preferences) with housing supply considerations. The preferences (21 percent single family, 53 percent mobile home, 10 percent multi-family, and 16 percent other) assumed for construction workers associated with the project were taken from the Construction Worker Profile (Mountain West, 1975). Other studies in the current body of literature describing variations in housing characteristics of residents in communities undergoing energy development are discussed in the socioeconomic technical appendix.

Lincoln County

The housing demand projections for Lincoln County include the demand expected in all communities, incorporated or unincorporated towns, and rural areas within the county. The man camp to be located near Opal (proposed by Northwest Pipeline) is included in determining the expected mix of housing demand type. The proposed man camp is included in the "other" category and meets an average annual housing demand of 35 in 1984, 512 in 1985, 825 in 1986, and 108 in 1987. Design capacities of the man camp are anticipated to meet monthly peak requirements of up to 1,500 in July of 1986. However, the average annual capacity is assumed to remain consistent with the housing demand analysis throughout the county and its municipalities.

Northwest Pipeline's man camp is shown in the housing analysis as the major part of the demand for "other" housing units. The basic allocation to housing type procedure is described in the technical appendix discussion of special housing needs such as those of construction workers. More explicitly, the effect of the proposed man camp was integrated into the determination of demand for each housing type in the proposed action case. The Lincoln County population forecast was reduced by the assumed capacity of the man camp. The remaining population was assigned to households assuming the 1980 Census mix of households (20 percent non-family), which was then distributed to type as described in the technical appendix. The population or one person households in the man camp was then added back to the housing demand in the "other" category. In order to account for the maximum effective reduction of the potential demand for private housing market response due to bringing the man camp into this market, the full average annual Northwest Pipeline plant construction work force was assumed as the capacity of the proposed man camp. This assumption may seem inconsistent from a pure demand standpoint as described for the population modeling in Section 4.2.1. However, housing market analysis must incorporate both demand and supply elements as fully as possible. The 20 percent single status assumption relates solely to the household composition of the entire county population and its housing demand excluding the supply effects imposed by the project participants. Including Northwest Pipeline's man camp at 100 percent within the total Riley Ridge Project net household demand demonstrates the maximum effect this individual participant's supply action will have on the household demand for single family, multi-family, and mobile homes and portrays the minimum response necessary by the private housing market. This approach is considered

appropriate since it shows the private market the level of demand which might allow profitable entrance into the market if the man camp is developed to its maximum average annual capacity. It also allows for an analysis over time to determine if the minimum level of temporary demand during the construction period will be sustained following construction. Intertemporal analysis of this nature is necessary since developers cannot justify the heavy investment required to meet housing demand which lasts for a period significantly less than that required to amortize their investment.

Use of the 20 percent single status assumption for the population modeling and to generate the total project net housing demand is the most conservative approach from which to support public sector planning. The use of 100 percent of average annual work force capacity as an individual participant's housing supply assumption in the distribution of total net housing demand to type is the most conservative approach from which to support private housing development planning. There are obviously interactive effects between population and housing demand forecasts since the amount and type of housing supply will affect the size, composition, and location of population changes. This interaction has been addressed through these two assumptions in the most appropriate fashion for the planning purposes required by both the public and the private sectors.

As shown in Table 4.2.2-1, housing demand due to the proposed action is projected to rise to a maximum of about 2,270 units above that expected without the project in 1986. Within Lincoln County, this represents a 49 percent increase from the baseline. An 18 percent increase is represented by the 825 average annual use of the man camp. The housing demand associated with both direct and indirect employment other than that residing in the man camp is projected to represent a 31 percent (1,445 units) increase above the baseline in 1986. This peak demand, other than that met by the proposed man camp, also is more than twice the net increase in demand one year later in 1987. The dynamics and locational considerations of projected housing demand indicate a need for additional temporary housing on an average annual basis in Lincoln County from 1985 through 1987. The total housing demand in 1990 (5,439) is about 19 percent or 886 units above the estimated 1982 stock of 4,553 dwellings. County housing demand will still be about 5,484 units in 1995 and will rise to over 5,860 units by 2000.

The proposed action housing demand in Kemmerer during 1986 (Table 4.2.2-2) is projected to be a 58 percent increase over the demand without the proposed action. Housing demand is expected to double in Diamondville during 1986 and be 19 percent above the baseline in 1990 as a result of the proposed action (Table 4.2.2-3). Due to the current lack of developable land, building to meet this projected demand in Diamondville may be difficult. Within LaBarge, the 1985 project-related peak housing demand (Table 4.2.2-4) is expected to be about 3.4 times the demand projected under the baseline. Unlike Kemmerer and Diamondville, the growth in LaBarge is expected to be 2.2 times the baseline projections in 1990. The more stable growth in housing demand in LaBarge indicates a potential need for over twice the existing permanent units to be added between 1982 and 1990 in addition to also adding a stock of temporary units in 1985 equivalent to the existing 1982 housing. Although demand is

TABLE 4.2.2-1

PROJECTED IMPACT OF THE PROPOSED ACTION ON HOUSING DEMAND IN LINCOLN COUNTY

Housing Type	1982	1983	1984	1985	1986	1987
Proposed Action Impact						
Single Family	0	0	180	783	980	456
Mobile Home	0	0	105	354	267	175
Multi-Family	0	0	29	106	103	57
Other	0	0	65	608	920	151
Total	0	0	379	1,851	2,270	839

Housing Type	1988	1989	1990	1995	2000
Proposed Action Impact					
Single Family	399	420	371	279	280
Mobile Home	187	206	142	107	107
Multi-Family	54	59	45	34	34
Other	49	53	35	26	26
Total	689	738	593	446	447

Source: Western Research Corporation; Laramie, Wyoming (1982).

TABLE 4.2.2-2

PROJECTED IMPACT OF THE PROPOSED ACTION ON HOUSING DEMAND IN THE TOWN OF KEMMERER

Housing Type	1982	1983	1984	1985	1986	1987
Proposed Action Impact						
Single Family	0	0	71	445	543	175
Mobile Home	0	0	21	118	152	44
Multi-Family	0	0	17	88	116	32
Other	0	0	10	60	74	24
Total	0	0	119	711	885	275

Housing Type	1988	1989	1990	1995	2000
Proposed Action Impact					
Single Family	134	163	108	89	85
Mobile Home	38	46	30	22	23
Multi-Family	28	34	26	17	19
Other	18	22	16	13	14
Total	218	265	180	141	141

Source: Western Research Corporation; Laramie, Wyoming (1982).

TABLE 4.2.2-3

PROJECTED IMPACT OF THE PROPOSED ACTION ON HOUSING DEMAND IN THE TOWN OF DIAMONDVILLE

Housing Type	1982	1983	1984	1985	1986	1987
Proposed Action Impact						
Single Family	0	0	23	160	199	58
Mobile Home	0	0	28	179	230	63
Multi-Family	0	0	3	17	21	6
Other	0	0	1	1	2	0
Total	0	0	55	357	452	127

Housing Type	1988	1989	1990	1995	2000
Proposed Action Impact					
Single Family	42	54	38	31	31
Mobile Home	50	63	45	37	37
Multi-Family	5	6	4	3	4
Other	0	0	0	0	0
Total	97	123	87	71	72

Source: Western Research Corporation; Laramie, Wyoming (1982).

TABLE 4.2.2-4

PROJECTED IMPACT OF THE PROPOSED ACTION ON HOUSING DEMAND IN THE TOWN OF LABARGE

Housing Type	1982	1983	1984	1985	1986	1987
Proposed Action Impact						
Single Family	0	0	103	261	229	211
Mobile Home	0	0	68	175	154	141
Multi-Family	0	0	12	32	28	27
Other	0	0	0	0	0	0
Total	0	0	183	468	411	379

Housing Type	1988	1989	1990	1995	2000
Proposed Action Impact					
Single Family	212	204	180	126	126
Mobile Home	143	136	120	84	84
Multi-Family	28	24	22	15	16
Other	0	0	0	0	0
Total	383	364	322	225	226

Source: Western Research Corporation; Laramie, Wyoming (1982).

expected to decline below 1990 levels, by 1995 housing demand in LaBarge will still be at about 200 units above the current 1982 stock.

Sublette County

The Riley Ridge proposed action is projected to result in a peak project-related housing demand (Table 4.2.2-5) during 1985 of 1,259 units in addition to the 1,894 units demanded without the project. The 1985 peak increase of 66 percent declines to an increase of 49 percent by 1990. Total Sublette County housing demand with the proposed action is expected to drop from 2,800 units in 1990 to 2,500 units in 1995 and rise to 2,600 units by 2000.

Within the affected towns in Sublette County, Big Piney is expected to have an increase of 148 percent above baseline forecasts (Table 4.2.2-6) in 1985; while Marbleton's peak project-related increase will be about 135 percent (Table 4.2.2-7) in the same year. The project-related increase in 1985 housing demand in Pinedale (Table 4.2.2-8) is expected to be 62 units or 14 percent above the baseline projections. By 1990, Big Piney and Marbleton are expected to double in size and remain at slightly below that level throughout the decade. Pinedale will need about 10 percent more housing in 1990 with the project than it will without the proposed action.

Town of Granger, Sweetwater County

The effects of the Riley Ridge Project on the Town of Granger are such that in 1986, the net increase due to the proposed action is about 61 percent of the housing demand without the project. After construction activity declines, the net increase by 1990 is projected to be about 10 percent of the demand projected under the baseline (Table 4.2.2-9) and will drop to 2 percent by 1995 and 2000.

4.2.3 PROJECTED EFFECTS ON FISCAL ANALYSIS AND PUBLIC SERVICES

Lincoln County

This section summarizes the effect of the Riley Ridge proposed action on the following services and facilities in Lincoln County: general administration, sheriff, road and bridge, fire, health and medical, mental health, welfare, library, parks and recreation, and solid waste. Revenue and expenditures are also discussed in this section.

Revenue and Expenditures

Revenue and expenditure projections for Lincoln County are summarized in Tables 4.2.3-1 and 4.2.3-2. Table 4.2.3-1 indicates two new sources of revenue related to the proposed action. They are the project-related sales and use tax and the impact assistance tax. The impact assistance tax is not expected to start until 1985 and the project-related sales and use tax is expected to begin in 1986. Impact assistance payments are expected to peak at $455,000 in 1986 and project sales and use taxes are expected to peak in 1987 at $230,800. With the proposed action, revenue impacts are expected to grow

TABLE 4.2.2-5

PROJECTED IMPACT OF THE PROPOSED ACTION ON HOUSING DEMAND IN SUBLETTE COUNTY

Housing Type	1982	1983	1984	1985	1986	1987
Proposed Action Impact						
Single Family	0	8	188	423	440	423
Mobile Home	0	4	236	548	432	354
Multi-Family	0	3	62	144	136	122
Other	0	0	62	144	107	84
Total	0	15	548	1,259	1,115	983

Housing Type	1988	1989	1990	1995	2000
Proposed Action Impact					
Single Family	444	486	467	350	350
Mobile Home	363	383	281	210	210
Multi-Family	128	140	123	92	92
Other	86	89	57	43	43
Total	1,021	1,098	928	695	695

Source: Western Research Corporation; Laramie, Wyoming (1982).

TABLE 4.2.2-6

PROJECTED IMPACT OF THE PROPOSED ACTION ON HOUSING DEMAND IN THE TOWN OF BIG PINEY

Housing Type	1982	1983	1984	1985	1986	1987
Proposed Action Impact						
Single Family	0	3	99	225	200	177
Mobile Home	0	1	40	91	80	72
Multi-Family	0	0	15	33	30	26
Other	0	0	1	2	1	1
Total	0	4	155	351	311	276

Housing Type	1988	1989	1990	1995	2000
Proposed Action Impact					
Single Family	187	199	168	126	126
Mobile Home	76	82	68	51	51
Multi-Family	28	30	26	19	19
Other	1	1	1	1	1
Total	292	312	263	197	197

Source: Western Research Corporation; Laramie, Wyoming (1982).

TABLE 4.2.2-7

PROJECTED IMPACT OF THE PROPOSED ACTION ON HOUSING DEMAND IN THE TOWN OF MARBLETON

Housing Type	1982	1983	1984	1985	1986	1987
Proposed Action Impact						
Single Family	0	2	54	124	110	98
Mobile Home	0	2	52	119	106	94
Multi-Family	0	0	5	13	12	10
Other	0	0	0	0	0	0
Total	0	4	111	256	228	202

Housing Type	1988	1989	1990	1995	2000
Proposed Action Impact					
Single Family	102	110	93	70	70
Mobile Home	97	104	88	66	66
Multi-Family	10	11	10	7	7
Other	0	0	0	0	0
Total	209	225	191	143	143

Source: Western Research Corporation; Laramie, Wyoming (1982).

TABLE 4.2.2-8

PROJECTED IMPACT OF THE PROPOSED ACTION ON HOUSING DEMAND IN THE TOWN OF PINEDALE

Housing Type	1982	1983	1984	1985	1986	1987
Proposed Action Impact						
Single Family	0	0	9	21	23	20
Mobile Home	0	0	11	27	22	17
Multi-Family	0	0	3	7	7	6
Other	0	0	3	7	6	4
Total	0	0	26	62	58	47

Housing Type	1988	1989	1990	1995	2000
Proposed Action Impact					
Single Family	21	23	23	17	17
Mobile Home	18	18	14	10	10
Multi-Family	6	7	6	4	4
Other	4	4	3	2	2
Total	49	52	46	33	33

Source: Western Research Corporation; Laramie, Wyoming (1982).

TABLE 4.2.2-9

PROJECTED IMPACT OF THE PROPOSED ACTION ON HOUSING DEMAND IN THE TOWN OF GRANGER, SWEETWATER COUNTY

Housing Type	1982	1983	1984	1985	1986	1987
Proposed Action Impact						
Single Family	0	0	2	16	18	4
Mobile Home	0	0	4	18	21	5
Multi-Family	0	0	1	3	4	2
Other	0	0	1	3	3	0
Total	0	0	8	40	46	11

Housing Type	1988	1989	1990	1995	2000
Proposed Action Impact					
Single Family	6	6	5	1	1
Mobile Home	5	5	3	1	1
Multi-Family	0	0	0	0	0
Other	0	0	0	0	0
Total	11	11	8	2	2

Source: Western Research Corporation; Laramie, Wyoming (1982).

TABLE 4.2.3-1

PROPOSED ACTION IMPACT ON LINCOLN COUNTY REVENUE (IN THOUSANDS OF DOLLARS)

CATEGORY	1983	1984	1985	1986	1987
ASSESSED VALUATION	0.0	0.0	4896.0	28431.0	51608.0
COUNTY CLERK	0.0	6.1	26.1	29.6	13.3
CLERK OF COURT	0.0	2.0	8.5	9.6	4.3
COUNTY TREASURY					
INVESTMENT INTEREST	0.0	0.0	0.0	0.0	0.0
MISC. FEES AND LICENSE	0.0	4.2	17.9	20.4	9.1
MUNICIPAL SALES TAX 1 & 3%	0.0	170.7	587.0	656.5	274.5
RILEY RIDGE SALES & USE	0.0	0.0	0.0	43.5	230.8
USE TAX	0.0	0.0	0.0	0.0	0.0
PILT FUNDS	0.0	0.0	0.0	0.0	0.0
GASOLINE TAX	0.0	10.7	45.6	51.9	23.2
FOREST RESERVE PAYMENT	0.0	0.0	0.0	0.0	0.0
SEVERANCE TAX	0.0	0.0	0.0	0.0	7.2
CIGARETTE TAX	0.0	.5	2.0	2.2	1.0
GOVERNORS EMERGENCY FUND	0.0	0.0	0.0	0.0	0.0
JUSTICE OF THE PEACE	0.0	0.0	0.0	0.0	0.0
SHERIFFS FEES	0.0	.2	1.0	1.1	.5
COMMUNICATIONS	0.0	0.0	0.0	0.0	0.0
REVENUE SHARING	0.0	0.0	0.0	0.0	0.0
TAX REVENUE					
GENERAL FUND TAXES	0.0	0.0	49.1	285.2	517.7
COUNTY FAIR TAXES	0.0	0.0	1.7	10.1	18.3
COUNTY LIBRARY TAXES	0.0	0.0	7.9	45.9	83.3
IMPACT ASSISTANCCE TAX	0.0	0.0	45.4	455.2	265.0
TOTAL REVENUE	0.0	194.3	792.2	1611.2	1448.3

(CONTINUED ON NEXT PAGE)

TABLE 4.2.3-1 (CONTINUED)

PROPOSED ACTION IMPACT ON LINCOLN COUNTY REVENUE (IN THOUSANDS OF DOLLARS)

CATEGORY	1988	1989	1990	1995	2000
ASSESSED VALUATION	50584.0	52473.0	53485.0	49400.0	49394.0
COUNTY CLERK	11.9	12.8	10.3	7.7	7.8
CLERK OF COURT	3.9	4.2	3.4	2.5	2.5
COUNTY TREASURY					
INVESTMENT INTEREST	0.0	0.0	0.0	0.0	0.0
MISC. FEES AND LICENSE	8.2	8.8	7.1	5.3	5.3
MUNICIPAL SALES TAX 1 & 3%	247.1	305.0	210.0	134.8	135.2
RILEY RIDGE SALES & USE	7.4	6.4	0.0	0.0	0.0
USE TAX	0.0	0.0	0.0	0.0	0.0
PILT FUNDS	0.0	0.0	0.0	0.0	0.0
GASOLINE TAX	20.9	22.4	18.0	13.6	13.6
FOREST RESERVE PAYMENT	0.0	0.0	0.0	0.0	0.0
SEVERANCE TAX	16.8	21.6	26.5	168.0	168.0
CIGARETTE TAX	.9	1.0	.8	.6	.6
GOVERNORS EMERGENCY FUND	0.0	0.0	0.0	0.0	0.0
JUSTICE OF THE PEACE	0.0	0.0	0.0	0.0	0.0
SHERIFFS FEES	.4	.5	.4	.3	.3
COMMUNICATIONS	0.0	0.0	0.0	0.0	0.0
REVENUE SHARING	0.0	0.0	0.0	0.0	0.0
TAX REVENUE					
GENERAL FUND TAXES	507.5	526.4	536.6	495.6	495.5
COUNTY FAIR TAXES	17.9	18.6	18.9	17.5	17.5
COUNTY LIBRARY TAXES	81.6	84.7	86.3	79.7	79.7
IMPACT ASSISTANCCE TAX	49.8	57.3	0.0	0.0	0.0
TOTAL REVENUE	974.5	1069.6	918.2	925.6	926.0

SOURCE: WESTERN RESEARCH CORPORATION; LARAMIE, WYOMING (1982).

TABLE 4.2.3-2

PROPOSED ACTION IMPACT ON LINCOLN COUNTY EXPENDITURES (IN THOUSANDS OF DOLLARS)

CATEGORY	1983	1984	1985	1986	1987
EXPENDITURES					
GENERAL COUNTY GOVERNMENT	0.0	81.7	349.2	396.9	177.8
COUNTY COMMISSIONERS	0.0	0.0	0.0	0.0	0.0
COUNTY SURVEYOR	0.0	0.0	0.0	0.0	0.0
COUNTY CORONER	0.0	0.0	0.0	0.0	0.0
DEVELOPMENT ADMINISTRATION	0.0	2.8	12.1	13.8	6.2
AGRICULTURE DEPARTMENT	0.0	0.0	0.0	0.0	0.0
COURTS AND JAIL	0.0	47.5	203.1	230.8	103.4
ROAD AND BRIDGE	0.0	91.0	389.3	442.4	198.2
WATER COMMISSIONER	0.0	0.0	0.0	0.0	0.0
ELECTIONS	0.0	2.5	10.6	12.0	5.4
HEALTH OFFICIER	0.0	0.0	0.0	0.0	0.0
OTHER GENERAL ACCOUNTS	0.0	144.8	619.1	703.7	315.3
REVENUE SHARING	0.0	0.0	0.0	0.0	0.0
TOTAL EXPENDITURES	0.0	370.3	1583.4	1799.7	806.3
REVENUE SURPLUS	0.0	-176.0	-791.1	-188.5	642.0

(CONTINUED ON NEXT PAGE)

TABLE 4.2.3-2 (CONTINUED)

PROPOSED ACTION IMPACT ON LINCOLN COUNTY EXPENDITURES (IN THOUSANDS OF DOLLARS)

CATEGORY	1988	1989	1990	1995	2000
EXPENDITURES					
GENERAL COUNTY GOVERNMENT	160.0	171.5	138.1	103.7	104.1
COUNTY COMMISSIONERS	0.0	0.0	0.0	0.0	0.0
COUNTY SURVEYOR	0.0	0.0	0.0	0.0	0.0
COUNTY CORONER	0.0	0.0	0.0	0.0	0.0
DEVELOPMENT ADMINISTRATION	5.6	6.0	4.8	3.6	3.6
AGRICULTURE DEPARTMENT	0.0	0.0	0.0	0.0	0.0
COURTS AND JAIL	93.0	99.7	80.3	60.3	60.5
ROAD AND BRIDGE	178.3	191.1	153.9	115.6	116.0
WATER COMMISSIONER	0.0	0.0	0.0	0.0	0.0
ELECTIONS	4.9	5.2	4.2	3.1	3.2
HEALTH OFFICIER	0.0	0.0	0.0	0.0	0.0
OTHER GENERAL ACCOUNTS	283.6	304.0	244.8	183.9	184.6
REVENUE SHARING	0.0	0.0	0.0	0.0	0.0
TOTAL EXPENDITURES	725.4	777.4	626.1	470.3	472.0
REVENUE SURPLUS	249.1	292.2	292.1	455.3	454.0

SOURCE: WESTERN RESEARCH CORPORATION; LARAMIE, WYOMING (1982).

rapidly to a peak of over $1.6 million in 1986 and then stabilize at about $900,000 per year in 1990.

Total expenditure impacts are projected to peak in 1986 then decline rapidly through 1990. Fiscal deficits are projected for 1984 through 1986. These deficits are not significant since they occur during the early years of population impact. However, the total net impact on revenue surplus for the years 1987 to 1990 is projected to be about $1.5 million. This revenue plus the county's bonding capacity should enable the county to meet all necessary expenditures.

General Administration

The proposed action is expected to have a significant impact on the general administration of Lincoln County. During the peak construction impact year of 1986, 11 additional people will be needed in general administration. By 1990, the net impact will decline to 4 staff positions. The county will need additional office space for these employees.

Sheriff's Department

The Sheriff's Department is expected to be impacted by the proposed action. There will be an additional need for five sworn officers, seven support staff, and four vehicles in 1986. The net impact of the proposed action for 1990 is two sworn officers, three support staff positions, and one vehicle. Space should be adequate for these additional needs.

Road and Bridge Department

Both staff and equipment needs of the Road and Bridge Department will increase indirectly in relation to population growth. No good method of establishing future equipment needs is available at present, and thus no equipment projections are made. In 1986, three staff positions are expected to be needed as a result of the Riley Ridge project. By 1990, the net impact will decrease to one position and stabilize at that level through the year 2000.

Fire Department

Because Lincoln County has no Fire Department, projections are not made here. The southern portion of Lincoln County is served by a special fire district which is discussed under Kemmerer.

Library

The Lincoln County Library will be impacted by the proposed action. Four additional staff positions and 10,500 volumes will be needed in 1986 under the proposed action. In 1990, the net impact will be 2 positions and 3,700 volumes. The library in Kemmerer is new and will be sufficient to handle anticipated growth.

Recreation

Lincoln County has no Recreation Department, and therefore no projections are made for the proposed action. A new recreation building is being proposed by the Town of Kemmerer.

Solid Waste

The existing landfill sites are relatively new and judged by locals to be adequate to handle anticipated growth. For a discussion of these facilities see Chapter 3 under Lincoln County "Solid Waste".

Town of Kemmerer

The following section discusses the impacts of population growth associated with the proposed action on municipal services. Specifically, revenue and expenditures, general administration, police, fire, municipal water, municipal sewer, street, and solid waste disposal are discussed.

Revenue and Expenditures

Projected revenue impacts for the Town of Kemmerer under the proposed action are shown in Table 4.2.3-3. Revenue impacts are most apparent in 1985 through 1987. These increases are largely attributable to increases in revenue from sales and use tax and impact assistance tax.

Projected expenditure impacts under the proposed action are presented in Table 4.2.3-4. The table indicates that operating revenue impact will exceed operating expenditure impacts for all years during the projection period. These impacts on revenue surpluses are largest in 1985 through 1987, when surpluses of $0.4 million (1985), $1.2 million (1986), and $0.6 million (1987) are projected. Costs for additional needed capital facilities and equipment are not included in the projections, however. The list presented with the baseline discussion in Section 3.2.2 summarizes needed capital expenditures which will still be needed under the proposed action as identified in the following sections and through conversations with the town administrator for Kemmerer.

As in the baseline projections, the costs for these items were not included in the expenditure forecasts, because decisions have not been made on how to fund most of these items. Again, municipalities in Wyoming are limited in their ability to incur debt, therefore, it is confusing and fallacious to project these needs as if the city could finance them.

The impacts on revenue surpluses total about $2.8 million from 1983 to 1990. Thus, the town should be able to pay for these needed capital expenditures if they can create legal financing mechanisms.

General Administration

Under the proposed action it is expected there will be a slight increase in

TABLE 4.2.3-3

PROPOSED ACTION IMPACT ON TOWN OF KEMMERER REVENUE (IN THOUSANDS OF DOLLARS)

CATEGORY	1982	1983	1984	1985	1986	1987
ASSESSED VALUATION	0.0	0.0	507.5	3043.1	3781.4	1176.2
--- REVENUE ---						
MUNICIPAL TAX	0.0	0.0	5.1	30.4	37.8	11.8
SALES AND USE TAX	0.0	672.5	802.9	1167.4	1723.1	1212.3
CIGARETTE TAX	0.0	0.0	3.5	20.8	25.8	8.0
GASOLINE TAX	0.0	0.0	3.1	18.5	22.9	7.1
MINERAL ROYALTIES	0.0	0.0	0.0	0.0	0.0	0.0
2% SEVERANCE TAX	0.0	0.0	0.0	0.0	0.0	8.4
IMPACT ASSISTANCE TAX	0.0	0.0	0.0	182.3	451.9	204.6
LICENSES,FEES,AND FINES	0.0	0.0	13.0	77.8	96.7	30.1
INTEREST	0.0	0.0	0.0	0.0	0.0	0.0
REVENUE SHARING	0.0	0.0	0.0	0.0	0.0	0.0
SALE OF EQUIPMENT	0.0	0.0	0.0	0.0	0.0	0.0
FRANCHISE TAX	0.0	0.0	2.1	12.7	15.8	4.9
MISCELLANEOUS	0.0	0.0	2.4	14.5	18.0	5.6
WATER USER FEES	0.0	0.0	41.1	246.6	306.5	95.3
SEWER USER FEES	0.0	0.0	16.0	95.8	119.1	37.0
SOLID WASTE FEES	0.0	0.0	9.4	56.6	70.4	21.9
RECREATION FEES	0.0	0.0	.8	5.0	6.2	1.9
MAJOR CAPITAL PROJECTS	0.0	0.0	0.0	0.0	0.0	0.0
WATER IMPROVEMENTS	0.0	0.0	0.0	0.0	0.0	0.0
SEWER IMPROVEMENTS	0.0	0.0	0.0	0.0	0.0	0.0
OTHER PROJECTS	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL REVENUE	0.0	8.7	222.4	1239.8	2188.0	921.5

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TABLE 4.2.3-3 (CONTINUED)

PROPOSED ACTION IMPACT ON TOWN OF KEMMERER REVENUE (IN THOUSANDS OF DOLLARS)

CATEGORY	1988	1989	1990	1995	2000
ASSESSED VALUATION	935.2	1130.3	828.2	665.3	667.0
--- REVENUE ---					
MUNICIPAL TAX	9.4	11.3	8.3	6.7	6.7
SALES AND USE TAX	931.0	984.8	902.4	865.4	928.3
CIGARETTE TAX	6.4	7.7	5.7	4.5	4.6
GASOLINE TAX	5.7	6.9	5.0	4.0	4.0
MINERAL ROYALTIES	0.0	0.0	0.0	0.0	0.0
2% SEVERANCE TAX	19.7	28.7	30.9	196.6	196.6
IMPACT ASSISTANCE TAX	63.8	90.8	0.0	0.0	0.0
LICENSES,FEES,AND FINES	23.9	28.9	21.2	17.0	17.1
INTEREST	0.0	0.0	0.0	0.0	0.0
REVENUE SHARING	0.0	0.0	0.0	0.0	0.0
SALE OF EQUIPMENT	0.0	0.0	0.0	0.0	0.0
FRANCHISE TAX	3.9	4.7	3.5	2.8	2.8
MISCELLANEOUS	4.4	5.4	3.9	3.2	3.2
WATER USER FEES	75.8	91.6	67.1	53.9	54.1
SEWER USER FEES	29.5	35.6	26.1	21.0	21.0
SOLID WASTE FEES	17.4	21.0	15.4	12.4	12.4
RECREATION FEES	1.5	1.8	1.4	1.1	1.1
MAJOR CAPITAL PROJECTS	0.0	0.0	0.0	0.0	0.0
WATER IMPROVEMENTS	0.0	0.0	0.0	0.0	0.0
SEWER IMPROVEMENTS	0.0	0.0	0.0	0.0	0.0
OTHER PROJECTS	0.0	0.0	0.0	0.0	0.0
TOTAL REVENUE	452.7	567.2	343.3	422.6	423.1

SOURCE: WESTERN RESEARCH CORPORATION; LARAMIE, WYOMING (1982).

TABLE 4.2.3-4

PROPOSED ACTION IMPACT ON TOWN OF KEMMERER EXPENDITURES (IN THOUSANDS OF DOLLARS)

CATEGORY	1982	1983	1984	1985	1986	1987
--- EXPENDITURES ---						
GENERAL ADMINISTRATION	0.0	0.0	14.1	84.6	105.2	32.7
FIRE DEPARTMENT						
OPERATING EXPENSES	0.0	0.0	3.0	18.3	22.7	7.1
CAPITAL FACILITIES	0.0	0.0	0.0	0.0	0.0	0.0
POLICE DEPARTMENT						
OPERATING EXPENSES	0.0	0.0	28.0	168.0	208.8	64.9
CAPITAL INVESTMENTS	0.0	0.0	0.0	0.0	0.0	0.0
STREETS AND ALLEYS						
OPERATING EXPENSES	0.0	0.0	32.0	192.0	238.6	74.2
CAPITAL INVESTMENTS	0.0	0.0	0.0	0.0	0.0	0.0
WATER DEPARTMENT						
OPERATING EXPENSES	0.0	0.0	26.3	157.4	195.6	60.8
CAPITAL INVESTMENTS	0.0	0.0	0.0	0.0	0.0	0.0
SEWER DEPARTMENT						
OPERATING EXPENSES	0.0	0.0	16.3	97.9	121.7	37.8
CAPITAL INVESTMENTS	0.0	0.0	0.0	0.0	0.0	0.0
SOLID WASTE DEPARTMENT						
OPERATING EXPENSES	0.0	0.0	6.2	36.9	45.9	14.3
CAPITAL INVESTMENTS	0.0	0.0	0.0	0.0	0.0	0.0
PARKS AND RECREATION	0.0	0.0	2.6	15.7	19.6	6.1
GOLF COURSE						
OPERATING EXPENSES	0.0	0.0	5.3	31.8	39.5	12.3
CAPITAL INVESTMENTS	0.0	0.0	0.0	0.0	0.0	0.0
MUNICIPAL COURT	0.0	0.0	1.0	6.0	7.4	2.3
MAJOR CAPITAL PROJECTS	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL EXPENDITURES	0.0	0.0	134.9	808.7	1004.9	312.6
REVENUE SURPLUS	0.0	8.7	87.5	431.1	1183.1	609.0

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TABLE 4.2.3-4 (CONTINUED)

PROPOSED ACTION IMPACT ON TOWN OF KEMMERER EXPENDITURES (IN THOUSANDS

CATEGORY	1988	1989	1990	1995	2000
— EXPENDITURES —					
GENERAL ADMINISTRATION	26.0	31.4	23.0	18.5	18.5
FIRE DEPARTMENT					
OPERATING EXPENSES	5.6	6.8	5.0	4.0	4.0
CAPITAL FACILITIES	0.0	0.0	0.0	0.0	0.0
POLICE DEPARTMENT					
OPERATING EXPENSES	51.6	62.4	45.7	36.7	36.8
CAPITAL INVESTMENTS	0.0	0.0	0.0	0.0	0.0
STREETS AND ALLEYS					
OPERATING EXPENSES	59.0	71.3	52.3	42.0	42.1
CAPITAL INVESTMENTS	0.0	0.0	0.0	0.0	0.0
WATER DEPARTMENT					
OPERATING EXPENSES	48.4	58.5	42.8	34.4	34.5
CAPITAL INVESTMENTS	0.0	0.0	0.0	0.0	0.0
SEWER DEPARTMENT					
OPERATING EXPENSES	30.1	36.4	26.6	21.4	21.5
CAPITAL INVESTMENTS	0.0	0.0	0.0	0.0	0.0
SOLID WASTE DEPARTMENT					
OPERATING EXPENSES	11.4	13.7	10.1	8.1	8.1
CAPITAL INVESTMENTS	0.0	0.0	0.0	0.0	0.0
PARKS AND RECREATION	4.8	5.8	4.3	3.4	3.5
GOLF COURSE					
OPERATING EXPENSES	9.8	11.8	8.6	6.9	7.0
CAPITAL INVESTMENTS	0.0	0.0	0.0	0.0	0.0
MUNICIPAL COURT	1.8	2.2	1.6	1.3	1.3
MAJOR CAPITAL PROJECTS	0.0	0.0	0.0	0.0	0.0
TOTAL EXPENDITURES	248.5	300.4	220.1	176.8	177.3
REVENUE SURPLUS	204.2	266.9	123.2	245.7	245.9

SOURCE: WESTERN RESEARCH CORPORATION; LARAMIE, WYOMING (1982).

demand for general administration personnel. Applying local standards, there will be a net increase for general administration staff in Kemmerer of four positions in 1986 and one position in 1990. Additionally, the need for a new city hall is more acute with the proposed action.

Police Department

The Police Department in Kemmerer will need an additional four sworn officers, two support staff, and one vehicle by 1986 with the proposed action. From 1990 through 2000 there is a projected impact of one officer. Again, the need for a new jail will be more pressing with the proposed action.

Fire Department

Although Kemmerer has a volunteer fire department, increased manpower will be needed to meet population demands under the proposed action. Specifically, there will be a need for 14 volunteers in 1986. In 1990, the net impact will be for 3 volunteers. The need for a new fire department building and a new 1,500 gpm pumper is increased with the proposed action. Cost estimates for these items are not yet available, nor are funding sources identified.

Municipal Water System

Kemmerer's water system serves both Kemmerer and Diamondville. For this reason, the populations of both communities were used in estimating water requirements. Table 4.2.3-5 shows the net impact on water capacity needed by year from 1982 to 2000. In 1986, 0.70 million gallons per day will be needed for both communities with the proposed action. The impact will decline to 0.15 million gallons per day in 1990 and remain relatively stable at that level. The current system can supply this demand.

Municipal Sewer System

Kemmerer and Diamondville are in the process of interlinking their sewer systems. Specifically, Diamondville is negotiating the costs for using Kemmerer's system. The connector lines and lift system are in place for the connection. For this reason, the capacity requirements for Kemmerer's sewer system are calculated by using the populations of both communities. Table 4.2.3-6 shows the need for 0.45 million gallons per day capacity in 1986 for the proposed action. This need is 0.10 million gallons per day in 1990, and 0.08 in 2000. The current system, which has just been expanded at a cost of almost $4,500,000, will accommodate these needs.

Street Department

The Street Department in Kemmerer will need additional personnel with the proposed action. About seven more staff positions will be needed in 1986 with the proposed action. In 1990, two additional positions will be needed. Additional street improvements will be needed with the proposed action but no cost estimates for these improvements are available at this time.

TABLE 4.2.3-5

PROJECTED PROPOSED ACTION IMPACT ON REQUIREMENTS FOR KEMMERER MUNICIPAL WATER SYSTEM[1]

Category	1982	1983	1984	1985	1986	1987	1988	1989	1990	1995	2000
Proposed Action Impact											
Capacity (Millions gallons/day)	0	0	0.09	0.56	0.70	0.21	0.16	0.20	0.15	0.12	0.12

Source: Western Research Corporation; Laramie, Wyoming, 1982.

[1]Personal conversation with Dave Sorenson, Superintendent, Water and Sewer Department, Kemmerer, September 21, 1982. Water systems requirements based on requirements for Kemmerer and Diamondville.

TABLE 4.2.3-6

PROJECTED PROPOSED ACTION IMPACT ON REQUIREMENTS FOR KEMMERER MUNICIPAL SEWER SYSTEM[1]

Category	1982	1983	1984	1985	1986	1987	1988	1989	1990	1995	2000
Proposed Action Impact											
Capacity (Millions gallons/day)	0	0	0.06	0.36	0.45	0.14	0.11	0.13	0.10	0.08	0.08

Source: Western Research Corporation; Laramie, Wyoming, 1982.

[1]Personal conversation with Dave Sorenson, Superintendent, Water and Sewer Department, Kemmerer, September 21, 1982. Sewer systems requirements based on requirements for Kemmerer and Diamondville.

Solid Waste

Solid waste disposal will need some increase in personnel due to the proposed action. A total of two additional positions will be needed in 1986. However, by 1990, increased demand for solid waste disposal as a result of the proposed action will not require any more personnel than necessary with baseline growth.

Town of Diamondville

The effects of the proposed action on the Town of Diamondville are analyzed in this section in reference to its fiscal analysis and municipal services. Specifically, general administration, police, fire, streets, solid waste, and parks and recreation are discussed.

Revenue and Expenditures

The proposed action is expected to have no significant negative impact on Diamondville's revenue and expenditures. Table 4.2.3-7 shows projected revenue impacts from 1982 to 2000. The major impacts of the proposed action are increased sales and use tax, the impact assistance tax, and increased utility user fees.

Projected expenditure impacts are shown in Table 4.2.3-8. As the two tables show, projected impacts on operating revenue should exceed those for operating costs in all years, leaving some revenue surplus to be used for capital expenditures.

While few capital expenditures were identified in this analysis, more needs will emerge as development proceeds. Because of the severance tax and impact assistance tax increases, Diamondville may have sufficient revenue overall but will probably experience a front-end financing problem.

General Administration

Some increase in general administration personnel for Diamondville is expected under the proposed action. Six additional positions will be needed in 1986. By 1990, only one additional position will be needed under the proposed action. The net impact from 1991 to 2000 is expected to be one position.

Police Department

Diamondville Police Department will be impacted by the population growth related to the proposed action. Specifically, three sworn officers, one staff position, and one patrol car will be needed in 1986. These impacts are expected to decrease rapidly after 1986 and by 1990 the impact of the proposed action on the police department will be minimal.

Fire Department

Diamondville is included in the South Lincoln County Special Fire District

TABLE 4.2.3-7

PROPOSED ACTION IMPACT ON TOWN OF DIAMONDVILLE REVENUE (IN THOUSANDS OF DOLLARS)

CATEGORY	1982	1983	1984	1985	1986	1987
ASSESSED VALUATION N.A.	0.0	0.0	178.2	1181.2	1495.1	423.6
MUNCIPAL BOND + MILL LEVY	0.0	0.0	1.4	9.4	12.0	3.4
SALES + USE TAX	0.0	2.8	40.9	140.5	157.1	65.7
RILEY RIDGE SALES & USE	0.0	0.0	0.0	14.0	162.7	86.3
CIGARETTE TAX	0.0	0.0	.0	.3	.4	.1
GASOLINE TAX	0.0	0.0	1.0	6.4	8.2	2.3
MINERAL ROYALTIES	0.0	0.0	0.0	0.0	0.0	0.0
SEVERENCE TAX	0.0	0.0	0.0	0.0	0.0	2.6
LICENSES,FEES,AND FINES	0.0	0.0	1.9	12.5	15.9	4.5
REVENUE SHARING	0.0	.0	0.0	0.0	0.0	0.0
FRANCHISE TAX	0.0	0.0	0.0	0.0	0.0	0.0
RECREATION	0.0	0.0	0.0	0.0	0.0	0.0
GRANT-COAL TAX	0.0	0.0	0.0	0.0	0.0	0.0
INTEREST	0.0	0.0	0.0	0.0	0.0	0.0
SEWER USERS FEES	0.0	0.0	1.7	11.3	14.3	4.1
WATER USERS FEES	0.0	0.0	16.6	109.7	138.9	39.4
IMPACT ASSISTANCE TAX	0.0	0.0	0.0	8.9	86.2	51.3
TOTAL REVENUE	0.0	2.9	63.5	313.2	595.6	259.6

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TABLE 4.2.3-7 (CONTINUED)

PROPOSED ACTION IMPACT ON TOWN OF DIAMONDVILLE REVENUE (IN THOUSANDS OF DOLLARS)

CATEGORY	1988	1989	1990	1995	2000
ASSESSED VALUATION N.A.	323.3	405.9	287.9	237.2	238.4
MUNCIPAL BOND + MILL LEVY	2.6	3.2	2.3	1.9	1.9
SALES + USE TAX	59.2	73.0	50.3	32.3	32.4
RILEY RIDGE SALES & USE	2.8	2.4	0.0	0.0	0.0
CIGARETTE TAX	.1	.1	.1	.1	.1
GASOLINE TAX	1.8	2.2	1.6	1.3	1.3
MINERAL ROYALTIES	0.0	0.0	0.0	0.0	0.0
SEVERENCE TAX	6.1	7.8	9.5	60.3	60.4
LICENSES,FEES,AND FINES	3.4	4.3	3.1	2.5	2.5
REVENUE SHARING	0.0	0.0	0.0	0.0	0.0
FRANCHISE TAX	0.0	0.0	0.0	0.0	0.0
RECREATION	0.0	0.0	0.0	0.0	0.0
GRANT-COAL TAX	0.0	0.0	0.0	0.0	0.0
INTEREST	0.0	0.0	0.0	0.0	0.0
SEWER USERS FEES	3.1	3.9	2.8	2.3	2.3
WATER USERS FEES	30.0	37.7	26.8	22.0	22.1
IMPACT ASSISTANCE TAX	11.6	13.4	0.0	0.0	0.0
TOTAL REVENUE	120.7	148.1	96.3	122.6	123.0

SOURCE: WESTERN RESEARCH CORPORATION; LARAMIE, WYOMING (1982).

TABLE 4.2.3-8

PROPOSED ACTION IMPACT ON TOWN OF DIAMONDVILLE EXPENDITURES (IN THOUSANDS OF DOLLARS)

CATEGORY	1982	1983	1984	1985	1986	1987
EXPENDITURES						
GENERAL FUND						
GENERAL GOVERNMENT	0.0	0.0	6.5	43.1	54.5	15.5
PUBLIC SAFTEY	0.0	0.0	0.0	0.0	0.0	0.0
STREETS AND ALLEY	0.0	0.0	15.2	100.9	127.7	36.2
POLICE DEPARTMENT	0.0	0.0	6.8	44.8	56.7	16.1
POLICE JUDGE	0.0	0.0	.2	1.2	1.6	.4
CAPITAL IMPROVEMENTS	0.0	0.0	0.0	0.0	0.0	0.0
HEALTH AND SANITATION	0.0	0.0	0.0	0.0	0.0	0.0
DIAMONDVILLE PARK	0.0	0.0	0.0	0.0	0.0	0.0
EQUIPMENT NEEDS	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL EXPENDITURES	0.0	0.0	46.7	309.3	391.5	110.9
REVENUE SURPLUS	0.0	2.9	16.8	3.9	204.1	148.7

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TABLE 4.2.3-8 (CONTINUED)

PROPOSED ACTION IMPACT ON TOWN OF DIAMONDVILLE EXPENDITURES (IN THOUSANDS

CATEGORY	1988	1989	1990	1995	2000
EXPENDITURES					
GENERAL FUND					
GENERAL GOVERNMENT	11.8	14.8	10.5	8.7	8.7
PUBLIC SAFTEY	0.0	0.0	0.0	0.0	0.0
STREETS AND ALLEY	27.6	34.7	24.6	20.3	20.4
POLICE DEPARTMENT	12.3	15.4	10.9	9.0	9.0
POLICE JUDGE	.3	.4	.3	.2	.3
CAPITAL IMPROVEMENTS	0.0	0.0	0.0	0.0	0.0
HEALTH AND SANITATION	0.0	0.0	0.0	0.0	0.0
DIAMONDVILLE PARK	0.0	0.0	0.0	0.0	0.0
EQUIPMENT NEEDS	0.0	0.0	0.0	0.0	0.0
TOTAL EXPENDITURES	84.7	106.3	75.4	62.1	62.4
REVENUE SURPLUS	36.0	41.8	20.9	60.5	60.6

SOURCE: WESTERN RESEARCH CORPORATION; LARAMIE, WYOMING (1982).

which is centered in Kemmerer. Because of this, projections of needs are made in the previous section under Kemmerer's Fire Department.

Municipal Water System

Because Diamondville receives its water from Kemmerer, the projections of needs related to the proposed action is discussed under Kemmerer's Municipal Water System.

Municipal Sewer System

Diamondville is expected to hook into the Kemmerer sewer system in the near future. Because of this, needed capacity is discussed under Kemmerer's Municipal Sewer System.

Street Department

There will be a need for increased Street Department staff under the proposed action. By 1986, the net impact will be two positions. In 1990, the proposed action will have no net impact on the municipal street department staff level. There is currently a need for a new dump truck and snow plow with or without the proposed action.

Solid Waste Disposal

Solid waste disposal is provided on a private basis in Diamondville; therefore, no projections as to increased demand are made as it is assumed the private operation will respond to changes in demand.

Parks and Recreation

The proposed action will cause increased population pressure on existing park and recreation facilities in Diamondville. There is a need for park land under the proposed action. Eight additional acres of park land will be needed in 1986 as a result of population growth associated with the proposed action.

Town of LaBarge

This section describes the impacts of population growth due to the proposed action on fiscal capacities and projected needs for municipal services in the Town of LaBarge. The following services are discussed: general administration, police, fire, municipal water, and streets.

Revenue and Expenditures

Projected revenue impacts on the Town of LaBarge under the proposed action appear in Table 4.2.3-9. Expenditure impacts are shown in Table 4.2.3-10. These projections indicate that LaBarge will experience slight revenue surplus impacts in 1983 and 1984. Beginning in 1985, net negative impacts are expected for the remainder of the projection period. The highest projected

TABLE 4.2.3-9

PROPOSED ACTION IMPACT ON TOWN OF LABARGE REVENUE (IN THOUSANDS OF DOLLARS)

CATEGORY	1982	1983	1984	1985	1986	1987
ASSESSED VALUATION	0.0	0.0	987.7	2494.1	2198.6	2006.5
--- REVENUE ---						
MUNICIPAL TAX	0.0	0.0	10.7	26.9	23.7	21.7
SALES AND USE TAX	0.0	44.7	53.3	78.7	128.2	87.9
OCCUPATIONAL TAX	0.0	0.0	1.6	4.1	3.6	3.3
CIGARETTE TAX	0.0	0.0	5.4	13.7	12.1	11.0
GASOLINE TAX	0.0	0.0	16.5	41.8	36.8	33.6
MINERAL ROYALTIES	0.0	0.0	0.0	0.0	0.0	0.0
2% SEVERANCE TAX	0.0	0.0	0.0	0.0	0.0	.8
IMPACT ASSISTANCE TAX	0.0	0.0	0.0	12.7	36.9	17.2
LICENSES,FEES,AND FINES	0.0	0.0	9.9	25.0	22.0	20.1
INTEREST	0.0	0.0	0.0	0.0	0.0	0.0
REVENUE SHARING	0.0	0.0	0.0	0.0	0.0	0.0
STATE FUNDS	0.0	0.0	0.0	0.0	0.0	0.0
MISCELLANEOUS	0.0	1.6	18.2	43.5	38.5	35.4
WATER USER FEES	0.0	0.0	16.4	41.4	36.5	33.3
SEWER USER FEES	0.0	0.0	18.5	46.7	41.2	37.6
WATER/SEWER TAP FEES	0.0	0.0	66.8	109.2	-1.2	-1.2
SPECIAL PROJECTS	0.0	0.0	0.0	0.0	0.0	0.0
FARM HOME-WATER/SEWER	0.0	0.0	0.0	0.0	0.0	0.0
ADDITIONAL HOOKUP FEE	0.0	0.0	0.0	0.0	0.0	0.0
FARM HOME-R.BANK PROJ.	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL REVENUE	0.0	2.2	172.3	397.9	331.5	252.3

(CONTINUED ON NEXT PAGE)

TABLE 4.2.3-9 (CONTINUED)

PROPOSED ACTION IMPACT ON TOWN OF LABARGE REVENUE (IN THOUSANDS OF DOLLARS)

CATEGORY	1988	1989	1990	1995	2000
ASSESSED VALUATION	2045.7	1942.4	1725.4	1208.8	1215.0
— REVENUE —					
MUNICIPAL TAX	22.1	21.0	18.6	13.0	13.1
SALES AND USE TAX	62.0	65.6	59.9	57.5	61.6
OCCUPATIONAL TAX	3.4	3.2	2.8	2.0	2.0
CIGARETTE TAX	11.2	10.7	9.5	6.6	6.7
GASOLINE TAX	34.3	32.5	28.9	20.2	20.3
MINERAL ROYALTIES	0.0	0.0	0.0	0.0	0.0
2% SEVERANCE TAX	1.8	2.3	2.8	17.6	17.5
IMPACT ASSISTANCE TAX	4.3	6.2	0.0	0.0	0.0
LICENSES,FEES,AND FINES	20.5	19.4	17.3	12.1	12.2
INTEREST	0.0	0.0	0.0	0.0	0.0
REVENUE SHARING	0.0	0.0	0.0	0.0	0.0
STATE FUNDS	0.0	0.0	0.0	0.0	0.0
MISCELLANEOUS	36.1	34.4	30.7	22.1	22.4
WATER USER FEES	34.0	32.3	28.6	20.1	20.2
SEWER USER FEES	38.3	36.4	32.3	22.7	22.8
WATER/SEWER TAP FEES	-1.4	-.9	0.0	0.0	0.0
SPECIAL PROJECTS	0.0	0.0	0.0	0.0	0.0
FARM HOME-WATER/SEWER	0.0	0.0	0.0	0.0	0.0
ADDITIONAL HOOKUP FEE	0.0	0.0	0.0	0.0	0.0
FARM HOME-R.BANK PROJ.	0.0	0.0	0.0	0.0	0.0
TOTAL REVENUE	217.4	213.0	181.9	143.0	143.7

SOURCE: WESTERN RESEARCH CORPORATION; LARAMIE, WYOMING (1982).

TABLE 4.2.3-10

PROJECTED IMPACT ON TOWN OF LABARGE EXPENDITURES (IN THOUSANDS OF DOLLARS)

CATEGORY	1982	1983	1984	1985	1986	1987
--- EXPENDITURES ---						
GENERAL ADMINISTRATION						
OPERATING EXPENSES	0.0	0.0	79.8	201.4	177.6	162.1
FIRE DEPARTMENT						
OPERATING EXPENSES	0.0	0.0	9.7	24.5	21.6	19.7
CAPITAL FACILITIES	0.0	0.0	0.0	0.0	0.0	0.0
POLICE DEPARTMENT						
OPERATING EXPENSES	0.0	0.0	35.1	88.6	78.1	71.3
STREETS AND ALLEYS						
OPERATING EXPENSES	0.0	0.0	30.5	77.0	67.9	61.9
WATER AND SEWER FUND						
OPERATING EXPENSES	0.0	0.0	14.4	36.3	32.0	29.2
DEBT SERVICE	0.0	0.0	0.0	0.0	0.0	0.0
WATER/SEWER EXPANSION	0.0	0.0	0.0	0.0	0.0	0.0
RIVERBANK PROJECT	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL EXPENDITURES	0.0	0.0	169.5	427.9	377.2	344.2
REVENUE SURPLUS	0.0	2.2	2.9	-30.0	-45.7	-92.0

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TABLE 4.2.3-10 (CONTINUED)

PROJECTED IMPACT ON TOWN OF LABARGE EXPENDITURES (IN THOUSANDS OF DOLLARS)

CATEGORY	1988	1989	1990	1995	2000
--- EXPENDITURES ---					
GENERAL ADMINISTRATION					
OPERATING EXPENSES	165.2	156.9	139.4	97.6	98.1
FIRE DEPARTMENT					
OPERATING EXPENSES	20.1	19.1	17.0	11.9	11.9
CAPITAL FACILITIES	0.0	0.0	0.0	0.0	0.0
POLICE DEPARTMENT					
OPERATING EXPENSES	72.7	69.0	61.3	42.9	43.2
STREETS AND ALLEYS					
OPERATING EXPENSES	63.2	60.0	53.3	37.3	37.5
WATER AND SEWER FUND					
OPERATING EXPENSES	29.8	28.3	25.1	17.6	17.7
DEBT SERVICE	0.0	0.0	0.0	0.0	0.0
WATER/SEWER EXPANSION	0.0	0.0	0.0	0.0	0.0
RIVERBANK PROJECT	0.0	0.0	0.0	0.0	0.0
TOTAL EXPENDITURES	351.0	333.2	296.0	207.4	208.4
REVENUE SURPLUS	-133.5	-120.2	-114.1	-64.3	-64.8

SOURCE: WESTERN RESEARCH CORPORATION; LARAMIE, WYOMING (1982).

deficit, $133,500, occurs in 1988. Deficits of $120,200 and $114,100 are projected for 1989 and 1990, respectively.

No capital expenditures were included in the projections; therefore LaBarge is likely to experience fiscal problems with the proposed action.

In terms of net fiscal impact, it is apparent that LaBarge will be unable to meet future personnel requirements and capital facilities requirements.

General Administration

Under the proposed action, additional personnel will be needed for LaBarge's general administration. Administrative personnel projections under the proposed action call for three additional staff in 1985, and two additional staff by 1990. The impacts on staff levels for general administration will remain constant from 1990 to 2000.

Police Department

Projections of the proposed action's impacts on LaBarge's Police Department indicate a need for two additional sworn officers, one additional support person, and one additional vehicle by 1985. Projections for 1990 also indicate additions of two officers, one support staff, and one vehicle will be needed by that year. Impacts during the 1990s will decrease and require only one more officer than would be needed with baseline growth.

Fire Department

LaBarge's volunteer Fire Department will require considerably more manpower to accommodate population increases resulting from the proposed action. Thirty-five additional volunteer fire personnel will be needed by 1985, and 24 additional volunteers will be needed in 1990, and 17 will be necessary in 2000.

Municipal Water System

The municipal water system of LaBarge will be impacted by projected population increases under the proposed action. Projections of water demand indicate that demand will exceed the presently available capacity of 0.123 million gallons per day by 1984 (Table 4.2.3-11). Additional water demand under the proposed action for 1985 is 0.241 million gallons per day, and an additional 0.167 million gallons per day will be needed to accommodate needs in 1990.

Municipal Sewer System

The projected needs of the sewer system are not discussed because the projected improvements to the sewer system will be more than adequate to cover any anticipated impacts.

Street Department

LaBarge has no paved streets and no street department per se.

TABLE 4.2.3-11

PROJECTED PROPOSED ACTION IMPACT ON REQUIREMENTS FOR LABARGE MUNICIPAL WATER SYSTEM[1]

Category	1982	1983	1984	1985	1986	1987	1988	1989	1990	1995	2000
Proposed Action Impact											
Capacity (Millions gallons/day)	0	0	.096	.241	.213	.194	.198	.188	.167	.117	.117

Source: Western Research Corporation; Laramie, Wyoming, 1982.

[1]Personal conversation with Dennis Hacklin, Mayor, LaBarge, September 27, 1982.

Solid Waste Disposal

Solid waste disposal is a private enterprise in LaBarge, therefore, no projections of needs are included because it is assumed that the private operator will respond to changes in demand for services.

Town of Opal

The Town of Opal will undoubtedly be affected by the Riley Ridge proposed action. The town was in the process of incorporation at the time of the basic study for this project and town boundaries were not defined. Subsequently, boundaries were established and the 1980 town population was determined to be approximately 100. Because of the town's small size and total lack of public services, relatively little impact should occur in Opal when compared to the Kemmerer-Diamondville area and LaBarge. Because of the lack of any public services no projected impacts of the proposed action on Opal are made.

Lincoln County School District #1

Revenue and Expenditures

Lincoln County School District #1 is in good fiscal condition with or without the proposed action (under existing law on school district funding). Table 4.2.3-12 shows the projected revenue impacts on the school district under the proposed action. Revenue impacts are expected to increase rapidly from 1985 to 1987 and stabilize at that level of about $1.1 million per year through 2000.

Table 4.2.3-13 projects expenditure impacts with the proposed action. The revenue surplus line shows the school district will experience a net negative impact from increased enrollments related to the proposed action during the peak construction period. However, because of the resources available to the school district, the increased costs from 1985 to 1988 can be met.

Enrollment and Capacity

When the new grade school is completed (expected in 1984), the classroom capacity in grades K-6 will be approximately 1,250 students. The enrollment capacity is 700 for grades 7-12. Total capacity will be 1,950. As shown in Table 4.2.3-14, these capacities will probably be inadequate to handle the enrollment in the impact years of 1986-1987. Other than the significant impact in these years, the school district should be able to accommodate the anticipated growth by adding additional teachers and staff. The school district should be able to handle the peak impact during 1986-87 with temporary classrooms. The school district currently owns three such classrooms.

Sublette County

This section summarizes the effects of the Riley Ridge proposed action on the following services and facilities in Sublette County: general administration,

TABLE 4.2.3-12

PROPOSED ACTION IMPACT ON LINCOLN SCHOOL DIST. #1 REVENUE (IN THOUSANDS OF DOLLARS)

CATEGORY	1982	1983	1984	1985	1986	1987
--- REVENUE ---						
LOCAL DISTRICT REVENUE						
PROPERTY TAXES	0.0	0.0	0.0	58.4	396.2	856.5
OTHER LOCAL REVENUE	0.0	0.0	0.0	27.1	157.8	195.1
COUNTY REVENUE						
COUNTY TAXES	0.0	0.0	0.0	0.0	0.0	0.0
OTHER COUNTY REVENUE	0.0	0.0	0.0	10.0	58.4	72.1
STATE REVENUE						
SCHOOL FOUNDATION	0.0	0.0	0.0	0.0	0.0	0.0
LAND INCOME	0.0	0.0	0.0	0.0	0.0	0.0
OTHER STATE REVENUE	0.0	0.0	0.0	0.0	0.0	0.0
FEDERAL REVENUE						
PUBLIC LAW 874	0.0	0.0	0.0	0.0	0.0	0.0
JOHNSON-OMALLEY	0.0	0.0	0.0	0.0	0.0	0.0
OTHER FEDERAL	0.0	0.0	0.0	0.0	0.0	0.0
CASH ON HAND	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL REVENUE	0.0	0.0	0.0	95.5	612.4	1123.8

(CONTINUED ON NEXT PAGE)

TABLE 4.2.3-12 (CONTINUED)

PROPOSED ACTION IMPACT ON LINCOLN SCHOOL DIST. #1 REVENUE (IN THOUSANDS OF DOLLARS)

CATEGORY	1988	1989	1990	1995	2000
--- REVENUE ---					
LOCAL DISTRICT REVENUE					
PROPERTY TAXES	983.9	1024.9	1039.4	1039.4	1039.4
OTHER LOCAL REVENUE	62.6	50.5	60.1	35.5	35.5
COUNTY REVENUE					
COUNTY TAXES	0.0	0.0	0.0	0.0	0.0
OTHER COUNTY REVENUE	23.1	18.7	22.2	13.1	13.1
STATE REVENUE					
SCHOOL FOUNDATION	0.0	0.0	0.0	0.0	0.0
LAND INCOME	0.0	0.0	0.0	0.0	0.0
OTHER STATE REVENUE	0.0	0.0	0.0	0.0	0.0
FEDERAL REVENUE					
PUBLIC LAW 874	0.0	0.0	0.0	0.0	0.0
JOHNSON-OMALLEY	0.0	0.0	0.0	0.0	0.0
OTHER FEDERAL	0.0	0.0	0.0	0.0	0.0
CASH ON HAND	0.0	0.0	0.0	0.0	0.0
TOTAL REVENUE	1069.6	1094.1	1121.7	1088.1	1088.1

SOURCE: WESTERN RESEARCH CORPORATION; LARAMIE, WYOMING (1932).

TABLE 4.2.3-13

PROPOSED ACTION IMPACT ON LINCOLN SCHOOL DIST. #1 EXPENDITURES (IN THOUSANDS OF DOLLARS)

CATEGORY	1982	1983	1984	1985	1986	1987
--- EXPENDITURES ---						
INSTRUCTION	0.0	0.0	0.0	252.4	1471.4	1818.6
INSTRUCTION SUPPORT	0.0	0.0	0.0	47.9	279.5	345.4
GENERAL SUPPORT	0.0	0.0	0.0	159.8	931.3	1151.1
COMMUNITY SUPPORT	0.0	0.0	0.0	3.5	20.6	25.4
CAPITAL OUTLAY	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL EXPENDITURES	0.0	0.0	0.0	463.6	2702.7	3340.6
REVENUE SURPLUS	0.0	0.0	0.0	-368.2	-2090.3	-2216.9

(CONTINUED ON NEXT PAGE)

TABLE 4.2.3-13 (CONTINUED)

PROPOSED ACTION IMPACT ON LINCOLN SCHOOL DIST. #1 EXPENDITURES (IN THOUSANDS OF DOLLARS)

CATEGORY	1988	1989	1990	1995	2000
--- EXPENDITURES ---					
INSTRUCTION	583.5	470.8	560.3	331.2	331.2
INSTRUCTION SUPPORT	110.8	89.4	106.4	62.9	62.9
GENERAL SUPPORT	369.4	298.0	354.6	209.6	209.6
COMMMUNITY SUPPORT	8.2	6.6	7.8	4.6	4.6
CAPITAL OUTLAY	0.0	0.0	0.0	0.0	0.0
TOTAL EXPENDITURES	1071.9	864.7	1029.1	608.3	608.3
REVENUE SURPLUS	-2.3	229.3	92.6	479.8	479.8

SOURCE: WESTERN RESEARCH CORPORATION; LARAMIE, WYOMING (1982).

TABLE 4.2.3-14

PROJECTED IMPACT ON ENROLLMENTS FOR LINCOLN COUNTY SCHOOL DISTRICT #1
UNDER THE RILEY RIDGE PROPOSED ACTION

Category	82-83	83-84	84-85	85-86	86-87	87-88	88-89	89-90	94-95	99-00
Proposed Action Impact										
K-6	0	0	83	486	600	193	155	185	109	109
7-12	0	0	58	337	415	133	107	128	76	76
Total Enrollments	0	0	141	823	1,015	326	262	313	185	185

Source: Western Research Corporation; Laramie, Wyoming (1982).

sheriff, roads and bridges, fire, library, and recreation. Sublette County revenue and expenditure projections are also discussed.

Revenue and Expenditures

Projected revenue and expenditure impacts for Sublette County with the proposed action are summarized in Tables 4.2.3-15 and 4.2.3-16.

The projections indicate that impacts on operating revenue exceed those for operating expenditures during most years in the forecast period. Projected impact on surplus revenue totals more than $10 million between 1985 and 1990. The revenue impacts are primarily due to increased sales and use taxes during the construction years, 1984-1987. Increases in revenue after 1987 are primarily due to increases in the county's assessed valuation. These increases are a result of the proposed action and of the increasing value of mineral property in the county.

The county does not presently have the optional one cent sales tax, and, therefore, does not have the impact assistance tax. If the county adopted the one cent sales tax it would have enough revenue to pay for any needs with the proposed action.

Capital facility needs for the county include a new courthouse and possibly a new hospital. But as the proposed action materializes, some capital needs will certainly develop. The county should have sufficient revenue to pay for any such needs.

General Administration

The Riley Ridge proposed action will have a discernible effect on the general administration of Sublette County. Because the county clerk, treasurer, assessor, and clerk of the court are elected officials, their numbers do not change. But the proposed action will result in a net increase in administrative staff. Nine additional staff will be necessary in 1985, the peak construction year, and seven staff positions will be needed in 1990. Impacts will stablilize at five staff positions during the 1990s.

Sheriff's Department

Table 4.2.3-17 displays the projected impacts on the Sublette County Sheriff's Department under the proposed action. The construction of the Riley Ridge Project will require the addition of three officers, one support staff position and two vehicles during the peak construction year, 1985. During the operations period, from 1990 to 2000, two additional officers would be needed as well as one support staff position and one vehicle.

Road and Bridge Department

Projected impacts on the Sublette County Road and Bridge Department as a result of the proposed action are presented in Table 4.2.3-18. The construction and operation of the Riley Ridge Project will require an additional seven staff members in 1985, the peak construction year, and an

TABLE 4.2.3-15

PROPOSED ACTION IMPACT ON SUBLETTE COUNTY REVENUE (IN THOUSANDS OF DOLLARS)

CATEGORY	1982	1983	1984	1985	1986	1987
ASSESSED VALUATION	0.0	0.0	242.0	9786.0	54640.0	78913.0
GENERAL FUND						
SALES TAX - 3 PCT	0.0	12.3	195.4	427.5	368.5	317.4
USE TAX - 3 PCT	0.0	1.2	18.8	41.2	35.5	30.6
USE TAX OUT STATE	0.0	1.3	21.2	46.4	40.0	34.5
GASOLINE TAX	0.0	.9	34.2	78.6	69.6	61.4
CIGARETTE TAX	0.0	0.0	.8	2.0	1.7	1.5
PROPERTY TAX	0.0	0.0	1.9	75.4	420.7	607.6
SUBTOTAL-TAX REVENUE	0.0	15.8	272.3	671.0	936.0	1053.0
OTHER GENERAL FUND REVENUE						
LICENSES,FEES,FINES	0.0	.7	24.1	55.4	49.1	43.3
MISCELLANEOUS	0.0	0.0	0.0	0.0	0.0	0.0
RURAL ADDRESSING	0.0	0.0	0.0	0.0	0.0	0.0
INTEREST GEN FND	0.0	0.0	0.0	0.0	0.0	0.0
STATE/CNTY (WATER COMM)	0.0	0.0	0.0	0.0	0.0	0.0
STATE-CTY ATTY SALARY	0.0	0.0	0.0	0.0	0.0	0.0
MINERAL SEVERANCE TAX	0.0	0.0	0.0	0.0	0.0	2.7
FOREST RESERVE	0.0	0.0	0.0	0.0	0.0	0.0
CASH BALANCE	0.0	0.0	0.0	0.0	0.0	0.0
IN LIEU OF TAXES	0.0	0.0	0.0	0.0	0.0	0.0
RILEY RIDGE SALES TAX	0.0	0.0	0.0	401.7	876.9	488.1
REVENUE SHARING	0.0	0.0	0.0	0.0	0.0	0.0
SUBTOTAL-OTHER GEN FUND	0.0	.7	24.1	457.1	926.0	534.1
TOTAL REVENUE	0.0	16.5	296.4	1128.1	1862.0	1587.1

(CONTINUED ON NEXT PAGE)

TABLE 4.2.3-15 (CONTINUED)

PROPOSED ACTION IMPACT ON SUBLETTE COUNTY REVENUE (IN THOUSANDS OF DOLLARS)

CATEGORY	1988	1989	1990	1995	2000
ASSESSED VALUATION	220140.0	386792.0	473251.0	483999.0	483637.0
GENERAL FUND					
SALES TAX - 3 PCT	326.8	357.1	284.5	194.1	194.0
USE TAX - 3 PCT	31.5	34.4	27.4	18.7	18.7
USE TAX OUT STATE	35.5	38.8	30.9	21.1	21.1
GASOLINE TAX	63.6	68.7	58.0	43.6	43.6
CIGARETTE TAX	1.6	1.7	1.4	1.1	1.1
PROPERTY TAX	1695.1	2978.3	3644.0	3726.8	3724.0
SUBTOTAL-TAX REVENUE	2154.0	3478.9	4046.2	4005.2	4002.4
OTHER GENERAL FUND REVENUE					
LICENSES,FEES,FINES	44.9	48.4	40.9	30.7	30.7
MISCELLANEOUS	0.0	0.0	0.0	0.0	0.0
RURAL ADDRESSING	0.0	0.0	0.0	0.0	0.0
INTEREST GEN FND	0.0	0.0	0.0	0.0	0.0
STATE/CNTY (WATER COMM)	0.0	0.0	0.0	0.0	0.0
STATE-CTY ATTY SALARY	0.0	0.0	0.0	0.0	0.0
MINERAL SEVERANCE TAX	6.3	8.1	9.9	63.0	63.0
FOREST RESERVE	0.0	0.0	0.0	0.0	0.0
CASH BALANCE	0.0	0.0	0.0	0.0	0.0
IN LIEU OF TAXES	0.0	0.0	0.0	0.0	0.0
RILEY RIDGE SALES TAX	444.1	570.7	573.2	0.0	0.0
REVENUE SHARING	0.0	0.0	0.0	0.0	0.0
SUBTOTAL-OTHER GEN FUND	495.3	627.2	624.0	93.7	93.7
TOTAL REVENUE	2649.3	4106.1	4670.3	4099.0	4096.2

SOURCE: WESTERN RESEARCH CORPORATION; LARAMIE, WYOMING (1982).

TABLE 4.2.3-16

PROPOSED ACTION IMPACT ON SUBLETTE COUNTY EXPENDITURES (IN THOUSANDS OF DOLLARS)

CATEGORY	1982	1983	1984	1985	1986	1987
GENERAL FUND						
GEN ADMINISTRATION	0.0	2.9	104.8	240.9	213.3	188.2
LAW ENFORCE-JUDICIAL	0.0	3.3	119.9	275.6	244.1	215.4
ROAD AND BRIDGE	0.0	4.6	170.2	391.2	346.4	305.7
REVENUE SHARING	0.0	0.0	0.0	0.0	0.0	0.0
CASH RESERVE,SHRINK,DEPR	0.0	0.0	0.0	0.0	0.0	0.0
OTHER GENERAL ACCTS	0.0	2.3	84.1	193.3	171.2	151.1
SUBTOTAL GEN. FUND EXP.	0.0	13.1	479.0	1101.0	975.0	860.3
CAPITAL FACILITIES						
NEW CAPITAL FACILITIES	0.0	0.0	0.0	0.0	0.0	0.0
COUNTY SERVICES						
FAIR	0.0	0.0	0.0	0.0	0.0	0.0
AIRPORT	0.0	0.0	0.0	0.0	0.0	0.0
HOSPITAL	0.0	0.0	0.0	0.0	0.0	0.0
LIBRARY	0.0	0.0	0.0	0.0	0.0	0.0
SPECIAL FIRE	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL COUNTY SERVICES	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL EXPENDITURES	0.0	13.1	479.0	1101.0	975.0	860.3
REVENUE SURPLUS	0.0	3.4	-182.7	27.0	887.0	726.8

(CONTINUED ON NEXT PAGE)

TABLE 4.2.3-16 (CONTINUED)

PROPOSED ACTION IMPACT ON SUBLETTE COUNTY EXPENDITURES (IN THOUSANDS OF DOLLARS)

CATEGORY	1988	1989	1990	1995	2000
GENERAL FUND					
GEN ADMINISTRATION	195.2	210.6	177.9	133.6	133.6
LAW ENFORCE-JUDICIAL	223.3	241.0	203.5	152.9	152.9
ROAD AND BRIDGE	316.9	342.0	288.9	216.9	216.9
REVENUE SHARING	0.0	0.0	0.0	0.0	0.0
CASH RESERVE,SHRINK,DEPR	0.0	0.0	0.0	0.0	0.0
OTHER GENERAL ACCTS	156.6	169.0	142.8	107.2	107.2
SUBTOTAL GEN. FUND EXP.	892.0	962.6	813.1	610.6	610.6
CAPITAL FACILITIES					
NEW CAPITAL FACILITIES	0.0	0.0	0.0	0.0	0.0
COUNTY SERVICES					
FAIR	0.0	0.0	0.0	0.0	0.0
AIRPORT	0.0	0.0	0.0	0.0	0.0
HOSPITAL	0.0	0.0	0.0	0.0	0.0
LIBRARY	0.0	0.0	0.0	0.0	0.0
SPECIAL FIRE	0.0	0.0	0.0	0.0	0.0
TOTAL COUNTY SERVICES	0.0	0.0	0.0	0.0	0.0
TOTAL EXPENDITURES	892.0	962.6	813.1	610.6	610.6
REVENUE SURPLUS	1757.3	3143.6	3857.2	3488.4	3485.6

SOURCE: WESTERN RESEARCH CORPORATION; LARAMIE, WYOMING (1982).

TABLE 4.2.3-17

PROJECTED PROPOSED ACTION IMPACT ON REQUIREMENTS FOR SUBLETTE COUNTY SHERIFF'S DEPARTMENT[1]

Category	1982	1983	1984	1985	1986	1987	1988	1989	1990	1995	2000
Proposed Action Impact											
Sworn Officers	0	0	1	3	3	2	3	3	2	2	2
Support Staff	0	0	1	1	1	1	1	1	1	1	1
Vehicles	0	0	1	2	1	1	1	1	1	1	1

Source: Western Research Corporation; Laramie, Wyoming, 1982.

[1]Personal conversation with Bud Slater, 1982.

TABLE 4.2.3-18

PROJECTED PROPOSED ACTION IMPACT ON REQUIREMENTS FOR SUBLETTE COUNTY ROAD AND BRIDGE DEPARTMENT[1]

Category	1982	1983	1984	1985	1986	1987	1988	1989	1990	1995	2000
Proposed Action Impact											
Staff	0	0	3	7	7	6	6	6	5	4	4

Source: Western Research Corporation; Laramie, Wyoming, 1982.

[1]Personal conversation with Mr. Michael McGinnis and Mr. Bill Alexander, 1982.

additional five staff members in 1990. The impact on the department staff will decrease to four positions during the 1990s.

Fire Department

Fire protection for county residents is provided by municipal fire departments and is discussed in the appropriate sections.

Library

Because the number of library volumes and clerks presently available in the Sublette County Library exceed library standards, no additions are needed during the forecast period. During the peak construction year, 1985, two additional librarians will be needed. This number will be sufficient for the operating period.

Recreation

Table 4.2.3-19 presents the projected needs for Sublette County Recreation space as a result of the construction and operation of the Riley Ridge proposed action.

As is evident from Table 4.2.3-19, the county will need approximately 20 additional acres of recreation area in 1985, the peak construction year. By 1990, the impact on needs for recreation area will have decreased to about 15 acres as a result of the Riley Ridge project.

Town of Big Piney

Revenue and Expenditures

Expected revenue and operating expenditure impacts under the Riley Ridge proposed action for Big Piney are presented in Tables 4.2.3-20 and 4.2.3-21.

It is expected that revenue will increase slower over the forecast period than expenditures over the same period. Impacts on revenue surpluses are expected to be negative during all years of the forecast period. Projected expenditure impacts will exceed revenue impacts in 1984 by $94,500, in 1985 by $133,500, and in 1990 by $44,300. Costs for additional capital facilities and equipment are not included in these projections. Therefore, it is expected that Big Piney will experience fiscal difficulties from 1983 through 2000 under the proposed action.

General Administration

The Riley Ridge proposed action will have an impact on the general administration of the Town of Big Piney. In the peak construction year, 1985, two additional positions will be needed and in 1990, one position will be needed in general administration as a result of the construction and operation of the Riley Ridge Project.

TABLE 4.2.3-19

PROJECTED PROPOSED ACTION IMPACT ON REQUIREMENTS FOR SUBLETTE COUNTY RECREATION[1]

Category	1982	1983	1984	1985	1986	1987	1988	1989	1990	1995	2000
Proposed Action Impact											
Acres	0	0	8.6	19.8	17.6	15.5	16.1	17.3	14.6	11.0	11.0

Source: Western Research Corporation; Laramie, Wyoming, 1982.

[1]Personal conversation with Mr. Bill Alexander, 1982.

TABLE 4.2.3-20

PROPOSED ACTION IMPACT ON TOWN OF BIG PINEY REVENUE (IN THOUSANDS OF DOLLARS)

CATEGORY	1982	1983	1984	1985	1986	1987
ASSESSED VALUATION	0.0	20.3	744.7	1701.0	1499.5	1336.8
TAX REVENUE						
SALES TAX - 3 PCT	0.0	3.2	51.0	111.6	96.2	82.8
USE TAX - 3 PCT	0.0	.3	5.0	10.9	9.4	8.1
OUT OF STATE USE	0.0	.3	5.5	12.0	10.3	8.9
PROPERTY TAXES	0.0	.2	6.0	13.6	12.0	10.7
CIGARETTE TAX	0.0	.3	9.9	22.6	19.9	17.7
GAS TAX	0.0	.2	6.5	14.7	13.0	11.6
OCCUPATION TAX	0.0	0.0	1.6	3.8	3.3	3.0
SUBTOTAL TAX REVENUE	0.0	4.5	85.4	189.2	164.1	142.8
LICENSES, FINES, PERMITS	0.0	1.1	41.7	95.3	84.0	74.9
MINERAL ROYALTIES	0.0	0.0	0.0	0.0	0.0	0.0
SEVERANCE TAX	0.0	0.0	0.0	0.0	0.0	1.3
AIRPORT BOARD	0.0	0.0	0.0	0.0	0.0	0.0
SEWER AND WATER FEES	0.0	1.5	54.6	124.8	110.0	98.1
LANDFILL FEES	0.0	.3	11.6	26.6	23.5	20.9
COUNTY HOSPT (AMBUL)	0.0	0.0	.5	1.1	.9	.8
FRANCHISE	0.0	0.0	1.0	2.3	2.0	1.8
MISCELLANEOUS	0.0	0.0	0.0	0.0	0.0	0.0
FIRE SERVICES (MARBLETON)	0.0	0.0	0.0	0.0	0.0	0.0
CASH ON HAND	0.0	0.0	0.0	0.0	0.0	0.0
COUNTY FIRE FUND	0.0	.4	13.2	30.1	26.5	23.6
COUNTY GENERAL FUND	0.0	.1	5.1	11.7	10.3	9.2
COUNTY AIRPORT BD	0.0	0.0	0.0	0.0	0.0	0.0
RILEY RIDGE SALES TAX	0.0	0.0	0.0	88.1	192.4	107.1
SUBTOTAL OTHER GENERAL FUND	0.0	3.5	127.8	379.9	449.7	337.7
TOTAL REVENUE	0.0	8.0	213.2	569.1	613.8	480.6

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TABLE 4.2.3-20 (CONTINUED)

PROPOSED ACTION IMPACT ON TOWN OF BIG PINEY REVENUE (IN THOUSANDS OF DOLLARS)

CATEGORY	1988	1989	1990	1995	2000
ASSESSED VALUATION TAX REVENUE	1385.6	1495.5	1263.5	948.1	948.1
SALES TAX - 3 PCT	85.3	93.2	74.2	50.6	50.6
USE TAX - 3 PCT	8.4	9.1	7.3	5.0	5.0
OUT OF STATE USE	9.2	10.0	8.0	5.4	5.4
PROPERTY TAXES	11.1	12.0	10.1	7.6	7.6
CIGARETTE TAX	18.4	19.8	16.8	12.6	12.6
GAS TAX	12.0	13.0	10.9	8.2	8.2
OCCUPATION TAX	3.1	3.3	2.8	2.1	2.1
SUBTOTAL TAX REVENUE	147.3	160.4	130.1	91.5	91.5
LICENSES, FINES, PERMITS	77.7	83.8	70.8	53.1	53.1
MINERAL ROYALTIES	0.0	0.0	0.0	0.0	0.0
SEVERANCE TAX	3.1	4.0	4.9	31.1	31.2
AIRPORT BOARD	0.0	0.0	0.0	0.0	0.0
SEWER AND WATER FEES	101.7	109.7	92.7	69.6	69.6
LANDFILL FEES	21.7	23.4	19.8	14.8	14.8
COUNTY HOSPT (AMBUL)	.9	.9	.8	.6	.6
FRANCHISE	1.8	2.0	1.7	1.3	1.3
MISCELLANEOUS	0.0	0.0	0.0	0.0	0.0
FIRE SERVICES (MARBLETON)	0.0	0.0	0.0	0.0	0.0
CASH ON HAND	0.0	0.0	0.0	0.0	0.0
COUNTY FIRE FUND	24.5	26.4	22.3	16.8	16.8
COUNTY GENERAL FUND	9.5	10.3	8.7	6.5	6.5
COUNTY AIRPORT BD	0.0	0.0	0.0	0.0	0.0
RILEY RIDGE SALES TAX	97.4	125.2	125.8	0.0	0.0
SUBTOTAL OTHER GENERAL FUND	338.2	385.8	347.5	193.8	193.9
TOTAL REVENUE	485.6	546.2	477.6	285.3	285.4

SOURCE: WESTERN RESEARCH CORPORATION; LARAMIE, WYOMING (1982).

TABLE 4.2.3-21

PROPOSED ACTION IMPACT ON TOWN OF BIG PINEY EXPENDITURES (IN THOUSANDS OF DOLLARS)

CATEGORY	1982	1983	1984	1985	1986	1987
GENERAL FUND	0.0	1.7	60.5	133.2	121.8	103.6
STREET DEPARTMENT	0.0	2.0	73.4	167.7	147.8	131.8
FIRE DEPARTMENT	0.0	.7	24.5	55.9	49.3	44.0
POLICE DEPARTMENT	0.0	2.0	74.5	170.2	150.1	133.8
WATER DEPARTMENT	0.0	.9	31.2	71.3	62.8	56.0
LANDFILL	0.0	.4	16.1	36.8	32.5	28.9
AIRPORT BOARD	0.0	.1	3.9	9.0	8.0	7.1
SEWER DEPARTMENT	0.0	.6	23.4	53.5	47.2	42.1
TOTAL EXPENDITURES	0.0	8.4	307.6	702.6	619.4	552.2
REVENUE SURPLUS	0.0	-.4	-94.5	-133.5	-5.6	-71.6

(CONTINUED ON NEXT PAGE)

TABLE 4.2.3-21 (CONTINUED)

PROPOSED ACTION IMPACT ON TOWN OF BIG PINEY EXPENDITURES (IN THOUSANDS OF DOLLARS)

CATEGORY	1988	1989	1990	1995	2000
GENERAL FUND	112.6	121.5	102.6	77.0	77.0
STREET DEPARTMENT	136.6	147.4	124.5	93.5	93.5
FIRE DEPARTMENT	45.6	49.2	41.6	31.2	31.2
POLICE DEPARTMENT	138.7	149.6	126.4	94.9	94.9
WATER DEPARTMENT	58.1	62.7	52.9	39.7	39.7
LANDFILL	30.0	32.4	27.4	20.5	20.5
AIRPORT BOARD	7.3	7.9	6.7	5.0	5.0
SEWER DEPARTMENT	43.6	47.1	39.8	29.8	29.8
TOTAL EXPENDITURES	572.4	617.7	521.9	391.7	391.7
REVENUE SURPLUS	-86.8	-71.6	-44.3	-106.4	-106.3

SOURCE: WESTERN RESEARCH CORPORATION; LARAMIE, WYOMING (1982).

Police Department

Table 4.2.3-22 shows a net impact in the number of sworn officers needed as a result of the construction and operation of the Riley Ridge proposed action. During the peak construction year, 1985, there will be a need for two additional officers and one additional vehicle, while in 1990, one additional officer will be needed. There will be a need to add one support staff position as a result of the Riley Ridge Project.

Fire Department

The Big Piney Fire Department will also be impacted by the construction and operation of the Riley Ridge proposed action. Table 4.2.3-23 demonstrates a need for an additional 30 volunteer fire fighters in the peak construction year, 1985, and an additional 22 volunteer fire fighters in 1990. This impact will decrease to a level of 17 volunteers during the 1990s.

Street Department

The Big Piney Street Department will experience some impacts as a result of the Riley Ridge proposed action. One and one-half additional positions will be needed in 1985, the peak construction year, and one additional position will be needed from 1990 to 2000.

Parks and Recreation

The Town of Big Piney has a current need of 3.5 acres for parks and recreation. With the construction and operation of the Riley Ridge proposed action an additional 5 acres would be needed by 1985, the peak construction year (see Table 4.2.3-24).

Town of Marbleton

Revenue and Expenditures

Projected revenue and expenditure impacts for the Town of Marbleton under the Riley Ridge proposed action are displayed in Tables 4.2.3-25 and 4.2.3-26.

Revenue is expected to increase primarily because of increases in sales and use tax, while expenditures are expected to increase due to increased demand for services. Net positive impacts on revenue surpluses are shown for most years. However, costs for capital and equipment expenditures have not been included in the above projections. Therefore, Marbleton is expected to experience fiscal difficulties throughout the period from 1984 to 2000.

General Administration

The construction and operation of the Riley Ridge proposed action will require an increase in the general administrative staff of one person by 1985, the peak construction year. This impact on staff levels will continue through the year 2000.

TABLE 4.2.3-22

PROJECTED PROPOSED ACTION IMPACT ON REQUIREMENTS FOR TOWN OF BIG PINEY POLICE DEPARTMENT[1]

Category	1982	1983	1984	1985	1986	1987	1988	1989	1990	1995	2000
Proposed Action Impact											
Sworn Officers	0	0	1	2	1	1	1	1	1	1	1
Support Staff	0	0	0	1	1	1	1	1	0	0	0
Vehicles	0	0	0	1	0	0	0	0	0	0	0

Source: Western Research Corporation; Laramie, Wyoming, 1982.

[1]Personal conversation with Chief Dennis Stefanini, 1982.

TABLE 4.2.3-23

PROJECTED PROPOSED ACTION IMPACT ON REQUIREMENTS FOR TOWN OF BIG PINEY FIRE DEPARTMENT[1]

Category	1982	1983	1984	1985	1986	1987	1988	1989	1990	1995	2000
Proposed Action Impact											
Volunteer Fire Fighters	0	0	13	30	27	24	25	26	22	17	17

Source: Western Research Corporation; Laramie, Wyoming, 1982.

[1]Personal conversation with Mr. Bob Tracey, 1982.

TABLE 4.2.3-24

PROJECTED PROPOSED ACTION IMPACT ON REQUIREMENTS FOR TOWN OF BIG PINEY PARKS AND RECREATION[1]

Category	1982	1983	1984	1985	1986	1987	1988	1989	1990	1995	2000
Proposed Action Impact											
Acres	0	0	2.3	5.2	4.6	4.1	4.2	4.6	3.9	2.9	2.9

Source: Western Research Corporation; Laramie, Wyoming, 1982.

[1]Personal conversation with Mr. Bob Tracey and Shirley Tanner, 1982.

TABLE 4.2.3-25

PROPOSED ACTION IMPACT ON TOWN OF MARBLETON REVENUE (IN THOUSANDS OF DOLLARS)

CATEGORY	1983	1984	1985	1986	1987
ASSESSED VALUATION	0.0	20.5	689.9	1578.3	1396.1
TAX REVENUE					
SALES TAX - 3 PCT	0.0	2.1	34.1	74.6	64.3
USE TAX - 3 PCT	0.0	.2	3.3	7.3	6.3
OUT OF STATE USE	0.0	.2	3.8	8.3	7.2
COUNTY TAXES	0.0	0.0	0.0	0.0	0.0
CIGARETTE TAX	0.0	.0	.9	2.1	1.8
GAS TAX	0.0	.1	3.6	8.2	7.3
PROPERTY TAX	0.0	0.0	0.0	0.0	0.0
SUBTOTAL TAX REVENUE	0.0	2.7	45.7	100.5	86.8
OTHER GENERAL FUND REVENUE					
LICENSES, FINES, PERMITS	0.0	.2	6.4	14.7	13.0
TIME DEPOSIT - GF	0.0	10.0	10.0	10.0	10.0
MINERAL ROYALTIES	0.0	0.0	0.0	0.0	0.0
SEVERANCE TAX	0.0	0.0	0.0	0.0	1.4
MISCELLANEOUS	0.0	0.0	0.0	0.0	0.0
WATER FEES	0.0	.9	31.6	72.3	64.0
WATER DEVELOPMENT GRNT	0.0	0.0	0.0	0.0	0.0
SEWER FEES	0.0	.2	7.4	17.0	15.0
LANDFILL FEES	0.0	.1	3.0	6.9	6.1
UTILITY HOOKUPS	0.0	.2	6.0	13.7	12.1
POWER FRANCHISE	0.0	.0	1.0	2.2	1.9
UTILITY FUND - CD	0.0	0.0	0.0	0.0	0.0
UTILITY FUND - MISC	0.0	0.0	0.0	0.0	0.0
BONDS AND INTEREST	0.0	0.0	0.0	0.0	0.0
BANK BALANCE	0.0	0.0	0.0	0.0	0.0
RILEY RIDGE SALES TAX	0.0	0.0	89.3	195.0	108.6
SUBTOTAL OTHER GENERAL FUND	0.0	11.6	154.7	331.8	232.1
TOTAL REVENUE	0.0	14.4	200.4	432.2	319.0

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TABLE 4.2.3-25 (CONTINUED)

PROPOSED ACTION IMPACT ON TOWN OF MARBLETON REVENUE (IN THOUSANDS OF DOLLARS)

CATEGORY	1988	1989	1990	1995	2000
ASSESSED VALUATION	1238.5	1283.6	1383.9	890.5	892.5
TAX REVENUE					
SALES TAX - 3 PCT	55.4	57.0	62.3	33.8	33.8
USE TAX - 3 PCT	5.4	5.6	6.1	3.3	3.3
OUT OF STATE USE	6.2	6.4	7.0	3.8	3.8
COUNTY TAXES	0.0	0.0	0.0	0.0	0.0
CIGARETTE TAX	1.6	1.7	1.8	1.2	1.2
GAS TAX	6.5	6.7	7.2	4.6	4.7
PROPERTY TAX	0.0	0.0	0.0	0.0	0.0
SUBTOTAL TAX REVENUE	75.0	77.3	84.4	46.7	46.8
OTHER GENERAL FUND REVENUE					
LICENSES, FINES, PERMITS	11.5	11.9	12.9	8.3	8.3
TIME DEPOSIT - GF	10.0	10.0	10.0	10.0	10.0
MINERAL ROYALTIES	0.0	0.0	0.0	0.0	0.0
SEVERANCE TAX	3.3	4.2	5.2	33.1	33.1
MISCELLANEOUS	0.0	0.0	0.0	0.0	0.0
WATER FEES	56.7	58.8	63.4	40.8	40.9
WATER DEVELOPMENT GRNT	0.0	0.0	0.0	0.0	0.0
SEWER FEES	13.3	13.8	14.9	9.6	9.6
LANDFILL FEES	5.4	5.6	6.0	3.9	3.9
UTILITY HOOKUPS	10.8	11.2	12.0	7.7	7.8
POWER FRANCHISE	1.7	1.8	1.9	1.2	1.2
UTILITY FUND - CD	0.0	0.0	0.0	0.0	0.0
UTILITY FUND - MISC	0.0	0.0	0.0	0.0	0.0
BONDS AND INTEREST	0.0	0.0	0.0	0.0	0.0
BANK BALANCE	0.0	0.0	0.0	0.0	0.0
RILEY RIDGE SALES TAX	98.8	127.0	127.5	0.0	0.0
SUBTOTAL OTHER GENERAL FUND	211.6	244.3	253.8	114.6	114.8
TOTAL REVENUE	286.6	321.6	338.2	161.4	161.5

SOURCE: WESTERN RESEARCH CORPORATION; LARAMIE, WYOMING (1982).

TABLE 4.2.3-26

TOWN OF MARBLETON EXPENDITURES: PROPOSED ACTION (IN THOUSANDS OF DOLLARS)

CATEGORY	1983	1984	1985	1986	1987
GENERAL ADMIN	0.0	.8	26.3	60.1	53.2
STREET DEPARTMENT	0.0	.7	24.0	54.9	48.5
FIRE DEPARTMENT	0.0	.2	6.0	13.7	12.1
POLICE DEPARTMENT	0.0	1.4	48.0	109.8	97.1
WATER AND SEWER	0.0	.9	30.6	70.0	61.9
NEW WELL	0.0	0.0	0.0	0.0	0.0
SANITATION	0.0	.1	3.0	6.9	6.1
INSURANCE	0.0	.1	4.8	11.0	9.7
UTILITIES	0.0	.4	12.1	27.7	24.5
TOTAL EXPENDITURES	0.0	4.7	158.3	362.2	320.4
REVENUE SURPLUS	0.0	9.7	42.1	70.1	-1.4

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TABLE 4.2.3-26 (CONTINUED)

TOWN OF MARBLETON EXPENDITURES: PROPOSED ACTION (IN THOUSANDS OF DOLLARS)

CATEGORY	1988	1989	1990	1995	2000
GENERAL ADMIN	47.2	48.9	52.7	33.9	34.0
STREET DEPARTMENT	43.1	44.6	48.1	31.0	31.0
FIRE DEPARTMENT	10.8	11.2	12.0	7.7	7.8
POLICE DEPARTMENT	86.1	89.3	96.2	61.9	62.1
WATER AND SEWER	54.9	56.9	61.3	39.5	39.6
NEW WELL	0.0	0.0	0.0	0.0	0.0
SANITATION	5.4	5.6	6.0	3.9	3.9
INSURANCE	8.6	8.9	9.6	6.2	6.2
UTILITIES	21.7	22.5	24.3	15.6	15.7
TOTAL EXPENDITURES	284.2	294.5	317.6	204.3	204.8
REVENUE SURPLUS	2.4	27.1	20.6	-43.0	-43.3

SOURCE: WESTERN RESEARCH CORPORATION; LARAMIE, WYOMING (1982).

Police Department

Table 4.2.3-27 shows net impacts on the number of officers and vehicles due to the construction and operation of the Riley Ridge proposed action. During 1985, the peak construction year, two additional officers, one additional vehicle, and one support position will be needed. By 1990, one additional officer will be needed and this level of impact will remain stable through 2000.

Municipal Water System

Table 4.2.3-28 presents expected needs of the Marbleton Water System resulting from the construction and operation of the Riley Ridge proposed action. A net increase of 0.15 million gallons per day is expected in 1985, the peak construction year, and 0.11 million gallons per day in 1990 as a result of the Riley Ridge Project. The current water system will be inadequate to meet the projected growth.

Street Department

As a result of the construction and operation of the Riley Ridge proposed action, the street department staff will need to be increased by two persons in the peak construction year, 1985. The impact will remain at this level through the year 2000.

Parks and Recreation

Table 4.2.3-29 presents anticipated needs for recreational space resulting from the Riley Ridge proposed action. Recreational acres will need to be increased over those presently available and net impacts resulting from the Riley Ridge Project will be about 4.8 acres by 1985.

Sublette County School District #9

Revenue and Expenditures

Projected revenue and expenditure impacts on Sublette County School District #9 under the Riley Ridge proposed action are presented in Tables 4.2.3-30 and 4.2.3-31.

Expenditures are expected to increase faster than revenue from 1984 through 1987. Positive impacts on revenue surpluses are expected after 1987. However, capital expenditures are not included in these projections and the school district may experience fiscal problems during the peak construction period.

Enrollments, Classroom Capacity, and Staff

Enrollment projections for Sublette County School District #9 under the Riley Ridge proposed action are presented in Table 4.2.3-32. The largest net increase in enrollments, 1,012 students, will come in 1985-86. To accommodate these students, an additional 39 classrooms and teachers will be needed (Table

TABLE 4.2.3-27

PROJECTED PROPOSED ACTION IMPACT ON REQUIREMENTS FOR TOWN OF MARBLETON POLICE DEPARTMENT[1]

Category	1982	1983	1984	1985	1986	1987	1988	1989	1990	1995	2000
Proposed Action Impact											
Sworn Officers	0	0	1	2	1	1	1	1	1	1	1
Support Staff	0	0	0	1	1	0	1	1	0	0	0
Vehicles	0	0	0	1	0	0	0	0	0	0	0

Source: Western Research Corporation; Laramie, Wyoming, 1982.

[1]Personal conversation with Mr. Harry Cameron, 1982.

TABLE 4.2.3-28

PROJECTED PROPOSED ACTION IMPACT ON REQUIREMENTS FOR TOWN OF MARBLETON WATER SYSTEM[1]

Category	1982	1983	1984	1985	1986	1987	1988	1989	1990	1995	2000
Proposed Action Impact											
Million Gallons/ Day	0	0	.07	.15	.14	.12	.13	.14	.11	.09	.09

Source: Western Research Corporation; Laramie, Wyoming, 1982.

[1]Personal conversation with Mr. Harry Cameron, 1982.

TABLE 4.2.3-29

PROJECTED PROPOSED ACTION IMPACT ON REQUIREMENTS FOR TOWN OF MARBLETON PARKS AND RECREATION[1]

Category	1982	1983	1984	1985	1986	1987	1988	1989	1990	1995	2000
Proposed Action Impact											
Acres	0	0	2.1	4.8	4.2	3.8	3.9	4.2	3.5	2.7	2.7

Source: Western Research Corporation; Laramie, Wyoming, 1982.

[1]Personal conversation with Mr. Bob Tracey and Mrs. Shirley Tanner, 1982.

TABLE 4.2.3-30

PROPOSED ACTION IMPACT ON SUBLETTE SCHOOL DIST. #9 REVENUE (IN THOUSANDS OF DOLLARS)

CATEGORY	1982	1983	1984	1985	1986	1987
ASSESSED VALUATION	0.0	0.0	218.0	10454.0	62249.0	86148.0
REVENUE						
BEGINNING BALANCE	0.0	0.0	0.0	0.0	0.0	0.0
LOCAL DISTRICT REVENUE						
PROPERTY TAXES	0.0	0.0	5.4	261.4	1556.2	2153.7
OTHER LOCAL	0.0	0.0	.6	31.0	72.8	64.3
COUNTY REVENUE	0.0	0.0	0.0	0.0	0.0	0.0
COUNTY TAXES	0.0	0.0	1.2	48.9	273.2	394.6
STATE REVENUE						
LAND INCOME	0.0	0.0	0.0	0.0	0.0	0.0
PUPIL ACTIVITY	0.0	0.0	.7	31.8	74.9	66.1
TOTAL REVENUE	0.0	0.0	8.0	373.0	1977.1	2678.6

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TABLE 4.2.3-30 (CONTINUED)

PROPOSED ACTION IMPACT ON SUBLETTE SCHOOL DIST. #9 REVENUE (IN THOUSANDS OF DOLLARS)

CATEGORY	1988	1989	1990	1995	2000
ASSESSED VALUATION	200827.0	336959.0	408785.0	408785.0	408785.0
REVENUE					
BEGINNING BALANCE	0.0	0.0	0.0	0.0	0.0
LOCAL DISTRICT REVENUE					
PROPERTY TAXES	5020.7	8424.0	10219.6	10219.6	10219.6
OTHER LOCAL	57.6	59.5	61.8	39.0	39.1
COUNTY REVENUE	0.0	0.0	0.0	0.0	0.0
COUNTY TAXES	1100.7	1934.0	2366.3	2420.0	2418.2
STATE REVENUE					
LAND INCOME	0.0	0.0	0.0	0.0	0.0
PUPIL ACTIVITY	59.2	61.1	63.5	40.1	40.2
TOTAL REVENUE	6238.1	10478.5	12711.1	12718.7	12717.1

SOURCE: WESTERN RESEARCH CORPORATION; LARAMIE, WYOMING (1982).

TABLE 4.2.3-31

PROPOSED ACTION IMPACT ON SUBLETTE SCHOOL DIST. #9 EXPENDITURES (IN THOUSANDS OF DOLLARS)

CATEGORY	1982	1983	1984	1985	1986	1987
INSTRUCTION	0.0	0.0	26.2	1254.1	2951.5	2604.5
INSTRUCTION SUPPORT	0.0	0.0	1.6	77.1	181.5	160.1
GENERAL SUPPORT	0.0	0.0	20.7	988.7	2327.0	2053.4
COMMUNITY SUPPORT	0.0	0.0	.3	14.0	33.0	29.1
CAPITAL OUTLAY	0.0	0.0	0.0	0.0	0.0	0.0
DEBT SERVICE	0.0	0.0	0.0	0.0	0.0	0.0
CASH RESERVE	0.0	0.0	0.0	0.0	0.0	0.0
PUPIL ACTIVITY	0.0	0.0	0.0	0.0	0.0	0.0
NON PROGRAM CHANGES	0.0	0.0	2.1	102.3	240.9	212.5
TOTAL EXPENDITURES	0.0	0.0	51.0	2436.3	5733.9	5059.6

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TABLE 4.2.3-31 (CONTINUED)

PROPOSED ACTION IMPACT ON SUBLETTE SCHOOL DIST. #9 EXPENDITURES (IN THOUSANDS OF DOLLARS)

CATEGORY	1988	1989	1990	1995	2000
INSTRUCTION	2333.2	2409.1	2502.4	1580.8	1583.7
INSTRUCTION SUPPORT	143.5	148.1	153.9	97.2	97.4
GENERAL SUPPORT	1839.5	1899.3	1972.9	1246.3	1248.6
COMMUNITY SUPPORT	26.1	26.9	28.0	17.7	17.7
CAPITAL OUTLAY	0.0	0.0	0.0	0.0	0.0
DEBT SERVICE	0.0	0.0	0.0	0.0	0.0
CASH RESERVE	0.0	0.0	0.0	0.0	0.0
PUPIL ACTIVITY	0.0	0.0	0.0	0.0	0.0
NON PROGRAM CHANGES	190.4	196.6	204.2	129.0	129.2
TOTAL EXPENDITURES	4532.7	4680.0	4861.3	3070.9	3076.6

SOURCE: WESTERN RESEARCH CORPORATION; LARAMIE, WYOMING (1982).

TABLE 4.2.3-32

PROJECTED IMPACT ON ENROLLMENTS FOR SUBLETTE COUNTY SCHOOL DISTRICT #9
UNDER THE RILEY RIDGE PROPOSED ACTION

Category	82-83	83-84	84-85	85-86	86-87	87-88	88-89	89-90	94-95	99-00
Proposed Action Impact										
K-5	0	5	222	522	461	413	426	443	279	280
6-8	0	2	92	217	191	171	177	184	116	116
9-12	0	2	116	273	241	216	223	232	146	147
Total Enrollments	0	9	430	1,012	893	800	826	859	541	543

Source: Western Research Corporation; Laramie, Wyoming (1982).

4.2.3-33). During 1989-90, the school district will have an additional 859 students as a result of the Riley Ridge Project. These students will require an additional 33 classrooms and teachers.

Sweetwater County

Town of Granger

Significant projected effects of the proposed Riley Ridge Project on the Town of Granger's requirements for revenue and expenditures and associated public services through 2000 are described below. Impacts on the following services and facilities are discussed: Police Department, Fire Department, solid waste disposal and impacts on Granger Elementary School.

Revenue and Expenditures

Table 4.2.3-34 shows revenue impacts for the Town of Granger under the proposed action. Projected expenditure impacts under the proposed action appear in Table 4.2.3-35.

Comparisons of projected expenditures with revenue indicate that population increases under the proposed action will necessitate increases in operating expenditures to provide municipal services, and that revenue increases in some years may not keep pace with expenditure increases. As a result, operating deficits are projected for all years except 1984 and 1985 under the proposed action. These deficits represent estimates of the additional revenue Granger will need to maintain its present levels of municipal services with proposed action population increases.

Projections indicate that during the years of peak population growth under the proposed action, revenue surpluses will accrue. The revenue surplus projected for 1985 is mainly attributable to revenue increases for water and sewer tap and connection fees due to the large population increase during that year. Beyond 1985, projected revenue increases do not keep pace with expenditure increases.

In addition to these operating deficits, Granger needs a waste disposal site. The town is negotiating for a site at this time, but no accurate estimate of cost is yet available. Whatever the cost, Granger will need revenue assistance to pay for it. Additionally, the list in Section 3.2.3 summarizes needed capital expenditures which were identified through conversations with the town officials and in the Sweetwater County Community Facilities Plan.

Costs for these items were not included in expenditure forecasts because decisions have not been made on how to fund them. Further, municipalities in Wyoming are limited in their ability to incur debt, therefore it is confusing to project these needs as if the town would finance them.

Police Department

Based on standards described in Appendix A, Granger's current Police Department should be adequate to meet requirements under the proposed action.

TABLE 4.2.3-33

PROJECTED IMPACT ON NET CLASSROOM AND TEACHER NEEDS[1] FOR SUBLETTE COUNTY SCHOOL DISTRICT #9
UNDER THE RILEY RIDGE PROPOSED ACTION

Category	82-83	83-84	84-85	85-86	86-87	87-88	88-89	89-90	94-95	99-00
Classroom Needs										
K-5	0	0	8	21	18	17	17	18	11	11
6-8	0	0	3	9	8	7	7	7	5	5
9-12	0	0	4	9	8	7	7	8	5	5
Total Classrooms	0	0	15	39	34	31	31	33	21	21
Teacher Needs										
K-5	0	0	9	21	18	17	17	18	11	11
6-8	0	0	4	9	8	7	7	7	5	5
9-12	0	0	4	9	8	7	7	8	5	5
Total Teachers	0	0	17	39	34	31	31	33	21	21

Source: Western Research Corporation; Laramie, Wyoming (1982).

[1]Assuming a mximum ratio of 1 classroom and teacher per every 30 high school students and 1 classroom and teacher per every 25 elementary/middle students. Assuming present excess capacity to be: 50 high school students; 100 middle school students; and 175 elementary students.

TABLE 4.2.3-34

PROPOSED ACTION IMPACT ON TOWN OF GRANGER REVENUE (IN THOUSANDS OF DOLLARS)

CATEGORY	1982	1983	1984	1985	1986	1987
ASSESSED VALUATION	0.0	0.0	41.9	203.7	235.6	55.9
PROPERTY TAX	0.0	0.0	.3	1.6	1.9	.4
1% SALES AND USE TAX	0.0	0.0	.3	1.4	1.6	.5
IN LIEU OF TAX FUNDS	0.0	0.0	0.0	0.0	0.0	0.0
3% SALES AND USE TAX	0.0	0.0	.4	1.4	1.6	.5
CIGARETTE TAX	0.0	0.0	.5	2.2	2.5	.6
GASOLINE TAX	0.0	0.0	.2	1.1	1.3	.3
MINERAL ROYALTIES	0.0	0.0	0.0	0.0	0.0	0.0
2% SEVERANCE TAX	0.0	0.0	0.0	0.0	0.0	.5
IMPACT ASSISTANCE TAX	0.0	0.0	0.0	0.0	0.0	0.0
LICENSES,FEES,AND FINES	0.0	0.0	1.0	4.6	5.4	1.3
REVENUE SHARING	0.0	0.0	0.0	0.0	0.0	0.0
WATER GRANTS AND LOANS	0.0	0.0	0.0	0.0	0.0	0.0
USER FEES	0.0	0.0	3.2	15.6	18.1	4.3
TAP AND CONNECTION FEES	0.0	0.0	11.7	45.1	8.3	0.0
BOND RESERVE	0.0	0.0	0.0	0.0	0.0	0.0
GRANTS AND LOANS	0.0	0.0	0.0	0.0	0.0	0.0
USER FEES	0.0	0.0	3.6	17.3	20.0	4.7
TAP AND CONNECTION FEES	0.0	0.0	10.7	41.5	7.7	0.0
BOND SINKING AND RESERVE	0.0	0.0	0.0	0.0	0.0	0.0
STREET PROJ. FUNDING	0.0	0.0	0.0	0.0	0.0	0.0
RECREATION PROJ. GRANTS	0.0	0.0	0.0	0.0	0.0	0.0
INTEREST INCOME	0.0	0.0	0.0	0.0	0.0	0.0
CASH ON HAND	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL REVENUE	0.0	.1	31.8	131.8	68.3	13.2

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TABLE 4.2.3-34 (CONTINUED)

PROPOSED ACTION IMPACT ON TOWN OF GRANGER REVENUE (IN THOUSANDS OF DOLLARS)

CATEGORY	1988	1989	1990	1995	2000
ASSESSED VALUATION	53.9	55.9	47.9	14.0	12.0
PROPERTY TAX	.4	.4	.4	.1	.1
1% SALES AND USE TAX	.4	.5	.3	.1	.1
IN LIEU OF TAX FUNDS	0.0	0.0	0.0	0.0	0.0
3% SALES AND USE TAX	.4	.6	.3	.1	.1
CIGARETTE TAX	.6	.6	.5	.2	.1
GASOLINE TAX	.3	.3	.3	.1	.1
MINERAL ROYALTIES	0.0	0.0	0.0	0.0	0.0
2% SEVERANCE TAX	1.1	1.3	1.7	10.7	10.7
IMPACT ASSISTANCE TAX	0.0	0.0	0.0	0.0	0.0
LICENSES,FEES,AND FINES	1.2	1.3	1.1	.3	.3
REVENUE SHARING	0.0	0.0	0.0	0.0	0.0
WATER GRANTS AND LOANS	0.0	0.0	0.0	0.0	0.0
USER FEES	4.1	4.3	3.7	1.1	.9
TAP AND CONNECTION FEES	0.0	0.0	0.0	0.0	0.0
BOND RESERVE	0.0	0.0	0.0	0.0	0.0
GRANTS AND LOANS	0.0	0.0	0.0	0.0	0.0
USER FEES	4.6	4.7	4.1	1.2	1.0
TAP AND CONNECTION FEES	-1.5	-2.1	-1.5	0.0	0.0
BOND SINKING AND RESERVE	0.0	0.0	0.0	0.0	0.0
STREET PROJ. FUNDING	0.0	0.0	0.0	0.0	0.0
RECREATION PROJ. GRANTS	0.0	0.0	0.0	0.0	0.0
INTEREST INCOME	0.0	0.0	0.0	0.0	0.0
CASH ON HAND	0.0	0.0	0.0	0.0	0.0
TOTAL REVENUE	11.6	12.0	10.8	13.8	13.4

SOURCE: WESTERN RESEARCH CORPORATION; LARAMIE, WYOMING (1982).

TABLE 4.2.3-35

PROPOSED ACTION IMPACT ON TOWN OF GRANGER EXPENDITURES (IN THOUSANDS OF DOLLARS)

CATEGORY	1982	1983	1984	1985	1986	1987
GENERAL ADMINISTRATION						
OPERATING EXPENSES	0.0	3.4	8.8	29.5	33.6	10.8
FIRE DEPARTMENT						
OPERATING EXPENSES	0.0	0.0	2.0	9.7	11.2	2.7
POLICE DEPARTMENT						
OPERATING EXPENSES	0.0	0.0	4.5	22.1	25.5	6.1
STREETS AND ALLEYS						
OPERATING EXPENSES	0.0	0.0	1.6	7.9	9.2	2.2
CAPITAL FACILITIES	0.0	0.0	0.0	0.0	0.0	0.0
PLANNING AND BUILDING						
OPERATING EXPENSES	0.0	0.0	.2	1.2	1.3	.3
RECREATION/CEMETARY/STG.						
OPERATING EXPENSES	0.0	0.0	.6	2.9	3.4	.8
CAPITAL FACILITIES	0.0	0.0	0.0	0.0	0.0	0.0
LAND AND EASEMENTS						
OPERATING EXPENSES	0.0	0.0	1.9	9.3	10.8	2.6
WATER FUND						
OPERATING EXPENSES	0.0	0.0	2.8	13.8	16.0	3.8
OTHER FACILITIES	0.0	0.0	0.0	0.0	0.0	0.0
BOND REDEMPT./INTEREST	0.0	0.0	0.0	0.0	0.0	0.0
SEWER FUND						
OPERATING EXPENSES	0.0	0.0	3.1	15.2	17.6	4.2
CAPITAL FACILITIES	0.0	0.0	0.0	0.0	0.0	0.0
BOND REDEMPT/INTEREST	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL EXPENDITURES	0.0	3.4	25.7	111.7	128.6	33.4

(CONTINUED ON NEXT PAGE)

TABLE 4.2.3-35 (CONTINUED)

PROPOSED ACTION IMPACT ON TOWN OF GRANGER EXPENDITURES (IN THOUSANDS OF DOLLARS)

CATEGORY	1988	1989	1990	1995	2000
GENERAL ADMINISTRATION					
OPERATING EXPENSES	10.6	10.9	10.0	6.0	6.3
FIRE DEPARTMENT					
OPERATING EXPENSES	2.6	2.7	2.3	.7	.6
POLICE DEPARTMENT					
OPERATING EXPENSES	5.8	6.1	5.2	1.5	1.3
STREETS AND ALLEYS					
OPERATING EXPENSES	2.1	2.2	1.9	.5	.5
CAPITAL FACILITIES	0.0	0.0	0.0	0.0	0.0
PLANNING AND BUILDING					
OPERATING EXPENSES	.3	.3	.3	.1	.1
RECREATION/CEMETARY/STG.					
OPERATING EXPENSES	.8	.8	.7	.2	.2
CAPITAL FACILITIES	0.0	0.0	0.0	0.0	0.0
LAND AND EASEMENTS					
OPERATING EXPENSES	2.5	2.6	2.2	.6	.5
WATER FUND					
OPERATING EXPENSES	3.7	3.8	3.3	.9	.8
OTHER FACILITIES	0.0	0.0	0.0	0.0	0.0
BOND REDEMPT./INTEREST	0.0	0.0	0.0	0.0	0.0
SEWER FUND					
OPERATING EXPENSES	4.0	4.2	3.6	1.0	.9
CAPITAL FACILITIES	0.0	0.0	0.0	0.0	0.0
BOND REDEMPT/INTEREST	0.0	0.0	0.0	0.0	0.0
TOTAL EXPENDITURES	32.3	33.5	29.3	11.7	11.2

SOURCE: WESTERN RESEARCH CORPORATION; LARAMIE, WYOMING (1982).

Presently, Granger does not employ any police support personnel, but is not substandard in that respect since it does not have enough officers to require support staff. However, it is possible that population increases due to the proposed action may eventually necessitate a police support person in Granger.

Fire Department

Under the proposed action, Granger's Fire Department will need an additional 8 volunteers in 1986, when population increases are greatest. In addition, it is apparent that existing equipment deficiencies will be exacerbated by local population growth under the proposed action, and that a new fire truck will be needed.

Solid Waste Disposal

The proposed action will require a projected 0.08 total additional acres for Granger's solid waste disposal. Since Granger currently lacks a state approved landfill site, the need for additional acreage due to the proposed action would add to Granger's solid waste disposal problem. In this sense, the need for a suitable landfill would be increased by the proposed action.

Granger Elementary School

Enrollment projections for Sweetwater County School District #2 indicate that during the 1984-85 school year, population increases in and near Granger under the proposed action will cause Granger's school enrollments in the grades kindergarten through 8 to be about 82 students, well within the school's recommended capacity of 100 students. In the peak year (1986-87), projections indicate that enrollment will exceed recommended capacity by approximately 23 students, barely within the maximum capacity of 125. Based on the present student/teacher ratio of 17.5 and the student/classroom ratio of 20, these projected enrollments could require 3 additional teachers and at least 1 additional classroom to accommodate growth under the proposed action. Depending upon the actual grade mix of the new students and the 1 to 2 year nature of the increase, temporary measures such as increased class size, temporary teachers and modular classrooms to accommodate this growth may be appropriate. In the years from 1986 through 1990, projected impacts are much smaller and it appears that enrollment increases will cause the school to be near its recommended enrollment capacity. Since the school's expansion requirement is limited, increased enrollments appear to have temporary but significant impacts on Granger Elementary School.

4.2.4 HUMAN SERVICES

Lincoln County

Health and Medical Services

Health and medical services needs will increase with the proposed action. The proposed action will create needs in 1985 for 4 doctors, 2 dentists, 1 public health nurse, 21 registered nurses, 3 nursing home beds, and 9 hospital beds. In the year 1990, the net impacts associated with the proposed action are

expected to be 2 doctors, 1 dentist, 8 registered nurses, 1 nursing home bed, and 4 hospital beds.

Mental Health Services

Mental health staff requirements are expected to increase marginally with the proposed action. One-half additional professional staff positions will be needed in 1985. By 1990, the number of professional staff positions required under the proposed action will not differ from the requirements associated with baseline growth.

Welfare and Social Services

The primary welfare and social service agency in Lincoln County is the State Department of Public Assistance and Social Services (D-PASS). Staff requirements for D-PASS are expected to increase slightly with the proposed action. Specifically, one additional staff position will be needed in 1985.

Since welfare, social and human services for Lincoln County municipalities are provided at the county level, they will not be discussed subsequently for each municipality.

Sublette County

Health and Medical Services

Table 4.2.4-1 presents projected medical service/health needs for Sublette County due to the construction and operation of the Riley Ridge Project. During the peak construction year, 1985, there will be a need for 2 additional doctors, 2 dentists and 14 additional registered nurses. Because the present number of public health nurses, nursing home beds and ambulance exceed state standards, no additions to these services will be necessary.

Mental Health Services

Projected needs for mental health services under the proposed action shows a need for only one additional professional throughout the construction and operational phases of the project.

Welfare and Social Services

Projected Sublette County needs for welfare and social services indicate that in the peak construction year, 1985, one more D-PASS staff position will be needed. This staffing level will be adequate for the operating period also.

4.2.5 DESCRIPTION OF POSSIBLE SOCIAL EFFECTS IN SUBLETTE AND LINCOLN COUNTIES

Introduction

It was not possible to make quantified projections of the social changes which would occur with the development of the Proposed Action. But because so much research has been done in recent years on the effects of energy development,

TABLE 4.2.4-1

PROJECTED PROPOSED ACTION IMPACT ON REQUIREMENTS FOR SUBLETTE COUNTY HEALTH AND MEDICAL SERVICES[1]

Category	1982	1983	1984	1985	1986	1987	1988	1989	1990	1995	2000
Proposed Action Impact											
Personnel											
Doctors	0	0	1	2	2	2	2	2	2	1	1
Dentists	0	0	1	2	1	1	1	1	1	1	1
Public Health Nurses	0	0	0	1	0	0	0	0	0	0	0
Registered Nurses	0	0	6	14	13	11	12	12	11	8	8
Facilities											
Nursing Home Beds	0	0	1	2	2	2	2	2	2	1	1
Ambulances	0	0	0	1	1	1	1	1	1	0	0

Source: Western Research Corporation; Laramie, Wyoming, 1982.

[1]Personal conversation with Dr. John Thomas, Pat Sigurslid RN, and Marilyn Jensen, 1982.

it is possible to provide a descriptive analysis of the major social changes which may occur with the Proposed Action. The majority of the discussion in this section is drawn from the report entitled Summary Research Report, BLM Social Effects Project (Thompson, Branch, and Williams, 1982).

Capacity of Local Communities to Manage Growth

For the BLM Social Effects Project (1982), ten communities including; Wheatland and Douglas, Wyoming and Rangely, Colorado; were studied which had undergone various levels of growth from energy development between 1970 and 1980. In summarizing the results from this study, the authors concluded that there were three major variables which were most influential in determining whether a small rural community can successfully manage rapid population growth:

1. The approach of the developer, i.e., whether the developer supports quality growth through actions and contributions of resources.

2. The degree of cooperation and coordination (sometimes referred to as community integration) that exists within a community at the commencement of development.

3. The level of community resources available when growth begins.

In the ten communities studied in the BLM study, the authors found that if at least two of the above variables existed in sufficient quantity at the time development commenced, the community was able to manage growth without suffering any major negative consequences for the majority of social groups present in the community. In those communities where all three variables were present in sufficient quantity, the growth experience was positive with the majority of residents perceiving that their community had experienced an overall benefit from growth. In four of the communities studied, the above variables were not present in sufficient quantity and, therefore, the communities experienced a number of avoidable negative outcomes as a result of growth due to energy development projects. Therefore, it is useful to examine the extent to which these variables are present in the area of site influence described in this analysis.

Without further interviewing and examination, it is impossible to comment on the status of the first two variables in the area of site influence. In terms of the third variable, the level of community resources available when growth begins, both Sublette and Lincoln counties have a relatively high level of resources with which to meet the needs that will result from the Proposed Action. Both counties have relatively high assessed valuations because of the high valuation of oil and gas properties present in these counties. Thus, as pointed out in the revenue and expenditures analysis in the preceding sections, these two counties can generate adequate levels of revenue to meet needs which will occur. While some municipalities within these two counties will not have sufficient revenue because of the particular tax structure for municipalities in the State of Wyoming, several mechanisms exist whereby municipal needs can be partially met from revenue available to the host county.

In addition to dollar resources, an important community resource is the prior experience of the community with development. In the two counties under consideration, Lincoln County has had extensive experience with energy development in the last five years. Thus, community members have a good idea of what to expect during a rapid growth period and have developed many of the tools for managing growth such as municipal zoning ordinances, and their professional administrators have experienced a number of the activities which have to be undertaken to successfully manage growth. Sublette County, on the other hand, has not had extensive experience with growth during the recent past. But since the State of Wyoming has had extensive experience with energy growth over the past decade, much of this information and knowledge has filtered down to local communities such as those found in Sublette County. Furthermore, state agencies which are charged with assisting counties and municipalities in managing growth have had significant experience with growth in other regions of the state. Additionally, the State of Wyoming is in good financial condition and has a variety of mechanisms for providing communities impacted from energy development with direct financial assistance and other forms of assistance such as staffing in public service agencies.

Thus, in relative terms, the communities described in this report have above average level of resources available to them to properly manage growth. Depending on the level of existence of the other two variables described above, therefore, the communities within the area of site influence should be able to be able to manage the expected growth in a positive manner.

Effects on Social Groups

Many studies on the effects of energy growth have suggested that negative effects may occur for certain social groups in small, rural communities (Wilkinson, et al., 1982a). Specific groups which have been mentioned in this literature include the elderly, people on fixed incomes, minority ethnic groups, and school-age children. In the ten communities that were studied in the Summary Research Report, it was found that there was considerable variance in the level and type of effect on specific social groups between communities.

As could be expected, elderly people on fixed incomes who also do not have a high level of real assets can be vulnerable to deprivation during periods of rapid change. But the BLM study found that this situation varied considerably from community to community and between individuals in each community. Specifically, it was found that the effect on elderly individuals with fixed incomes was often moderated by specific community actions such as the building of senior citizen housing or low income housing and the provision of senior citizen services. In some cases these resources were provided for senior citizens from resources already available to local communities. In other cases grants were obtained from federal agencies for items such as low income housing, and in even other cases grants and financial assistance were obtained from energy project developers to assist in mitigating the impacts on elderly citizens. Thus, it appears that the effect of the Proposed Action on elderly citizens in the area of site influence will depend on how the local communities use their existing resources and to what extent they obtain assistance for senior citizens from state and federal government and from the proposed project developers.

For ethnic groups, the BLM study again found that effects were highly varied. In two communities reported on in the Summary Research Report, Mexican-American workers in-migrated to the growth area because of the availability of high-paying jobs with the result that income levels for this group were raised and the social status of this group was improved through upward occupational mobility. In some communities, however, it was reported that while there were significant economic benefits for minority groups from development, there was considerable cultural conflict brought on by several aspects of development, including shift work and the creation of personal and familial stress. Given that there are few ethnic groups of any significant size in Lincoln and Sublette counties, it is not expected that effects on these groups will be a problem. As described in previous sections of this report, it is not projected that the demographic characteristics of in-migrating residents will be significantly different than the demographic characteristics of the residents already occupying this area. The one exception is that on the average these new residents may be somewhat younger than the existing population in the area.

Even though there have been a number of references in the popular media and in the literature related to energy impacts about the effect of rapid growth or energy development on schools and school-age children, the Summary Research Report found little evidence of any serious negative effects on school children due to energy development. Few teachers or students felt that increased drug usage was a problem that could be attributed to energy development. Rather, a number of educators reported that there were varying levels of drug usage and drug problems in the school system, but few were willing to say that this drug usage or drug problems resulted because of population growth. Rather, most respondents appeared to believe that the trend toward increased drug usage in high school and elementary schools was part of a national trend that would have occurred whether or not energy development took place in their area.

One group of school children did appear to be having educational problems and these were the children of mobile construction workers. A number of school officials reported high incidences of learning disabilities and overall lower academic achievement for this group. There are a number of problems which occur for mobile construction workers and their families and these are described in the following paragraph.

The Summary Research Report and a few other limited literature sources suggest that a group that suffers a number of specific problems related to rapid population growth are mobile construction workers who come to an area to work for a limited time on specific projects. The very fact of frequent mobility suggests that the basic social processes of living will be different than those of people who are less mobile. The processes of child rearing, schooling, courtship and marriage, and personal and family finances are likely to be structurally different for people who move constantly resulting in different lifestyles, social values, and behaviors. The Summary Research Report indicates that differences in lifestyles, conflicts of values, and disruptive social behaviors are some of the more common concerns about development. Where there was evidence of these issues, mobile workers were almost always involved. It appears that permanent workers in energy are much

like indigenous residents, that is, the structural process of their lives closely resembles that of other local residents. It is the mobile construction worker who appears to differ significantly. The reports cited above listed some tentative, limited observations of issues related to mobile workers:

1. If there is an education problem in growth communities, it probably involved the children of mobile workers. Frequent enrolling and withdrawing from school systems is disruptive, and children who move from school to school are more likely to have learning problems.

2. The marriage and divorce structure for mobile workers is probably less conventional. Living together without the sanction of marriage is more normative, and divorce or separation is more common.

3. Personal and family financing is built around irregularity of paychecks. Thus, different patterns of consumption and saving should emerge.

4. A variety of social behaviors viewed as deviant or even criminal by less mobile populations may be seen as normal and functional by highly mobile groups (Summary Research Report; 1982; p. 284).

Because of these differences, it is possible that mobile construction workers may suffer some of the most negative effects in an energy development area. Because of this fact, it is important that both local community members and project sponsors be alert to the fact that some of the most negative social consequences may occur to the construction worker newly arrived in a community rather than to long-term, indigenous residents of the area. Thus, for the Proposed Action assessed here, the social group which potentially could have the most problems adjusting may be construction workers migrating to the area. The level of problems experienced by this group will be in part dependent on actions taken by the project developers and the local communities.

Changes in Social Indicators

In Chapter 3 of this report information on six social indicators was presented. The authors again caution that indicators developed from secondary data are only tentatively related to social well-being. To be of most use such indicators need be used in conjunction with other forms of primary information about a community in order to make a reasonable assessment of the well-being of a community and to forecast changes in well-being which may occur as the result of a development. The discussion of indicators provided below must be interpreted cautiously.

Per Capita Income

As stated in Chapter 3, per capita income in Sublette and Lincoln counties has increased from 1976 to 1980, but per capita income in Lincoln County has lagged behind that of the state.

With the Proposed Action, projected per capita income for Lincoln and Sublette counties will continue to increase substantially and, in both counties, should exceed the state average by 1990.

In summary, per capita earnings in Lincoln and Sublette counties are projected to rise well above the State of Wyoming average during the construction years, 1985-86, and to remain above the state average in the permanent operations period, 1988 and beyond.

Unemployment

While it is difficult to project unemployment, findings from the BLM Summary Research Report indicate that unemployment can rise in growth counties even during the construction years. It is believed that such an increase, when it occurs, is due to more job seekers migrating into an area than there are available jobs.

Further, evidence from the BLM study suggests that unemployment rises and can become a problem after the construction period for a project. Some people remain in the area while looking for work in order to collect unemployment benefits.

Divorce

Much has been written about divorce and energy development (see review by Wilkinson et al., 1982a, 1982b). But in the paper entitled, Divorce and Recent Net Migration in the Old West, (Wilkinson et al., 1982b), the authors conclude that there is little empirical evidence to suggest that the rate of divorce increases in a local community as a result of energy development. The rate of divorce may increase in a local community when development occurs, but if it does, it is probably because more young marrieds have moved into the area, i.e., the population of married persons eligible to get divorced has increased.

Thus, there is no reason to predict that the rate of divorce among people living in the area will increase, or that the rate of divorce for new in-migrants will increase.

Infant Mortality

As stated in Chapter 3, the small number of cases of infant mortality in Lincoln and Sublette counties makes it difficult to project or compare rates of change.

However, there is no reason to believe that the rate of infant mortality may increase with the Proposed Action. If anything, general health care may improve if more physicians are recruited to the area and another medical clinic is built in Sublette County.

Mental Health

This discussion of mental health assumes a broad interpretation which could be

called mental well-being.

The BLM Summary Research Report addressed the problem of mental well-being from a broad perspective. Based on the review of ten communities, several conclusions were drawn which related to the Proposed Action in this analysis.

First, there was evidence that a serious level of disruption in the mental well-being of some people did occur in a majority of the cases studies.

Second, while increases in the incidence of psychotic disorders were not large, increases in "problems in living" were substantial in all the communities which experienced large growth. "Problems in living" refer to adjustment problems which are serious enough to bring people to a counseling agency but which would not be called psychiatric disorders. Examples are marital problems, drinking problems, and problems in adjusting to new schools and peers for juveniles. Simply stated, "problems in living" in stable communities with established friendships and kinship networks are managed within these existing support systems. But when population growth is large, both old and new residents can find themselves in need of assistance in coping with everyday living problems.

Third, the BLM study found that alcohol abuse was a major problem in most energy growth communities. This problem does not appear to be directly caused by energy development but rather appears to be an extensive problem both with indigenous residents and new in-migrating workers and families. When development occurs, alcohol abuse becomes more evident because law enforcement often becomes more formalized and because it influences social interactions which are in a state of flux.

Fourth, another major problem area involved conflicts between family members -- spouse abuse, parent-child conflicts, and child abuse and neglect. Again, these problems appear to be exacerbated by the lack of established social networks due to a rapid increase in population.

In summary, given the increases in population which are projected for Lincoln and Sublette counties, it is reasonable to expect an increase in problems with mental well-being which require formal counseling and assistance. Specifically, increases in "problems in living", alcohol abuse, and in family relations may occur with the Proposed Action.

Crime

Because of problems with obtaining accurate data on crime, it is difficult to predict how crime patterns change as a result of energy development.

The BLM Summary Research Report concluded from interviews with local law enforcement officials and others, that a real increase in crime does accompany rapid population growth. Increases appear to be primarily in property crimes (larceny, petty theft, burglary), assaults, and alcohol-related offenses. There appears to be little increase in the so-called victim crimes -- homicide (including murder), rape, and robbery.

In a recent paper entitled, Nonmetropolitan Growth and Violent Crime in the Western Energy-Development Region, by Wilkinson, et al. (1983c), data on 197 nonmetropolitan counties in the energy-development region were used to estimate the effect of growth on violent crime rates. The analysis found no significant relationship between growth and the violent crime rate when population size and previous community characteristics were controlled. Thus, it appears that the effect of growth on violent crime is very site-specific and is influenced heavily by community size prior to growth.

In the BLM study,local interviews suggested that aggravated and simple assaults increase dramatically in high growth communities. Alcohol-related crimes were also reported as a major problem in most of the ten study communities.

It was also reported that larceny, theft, bad debt cases, and insufficient funds checks create an increased workload for local law enforcement agencies who find themselves used as "property retrievers" and "paper servers". This increase in administrative load creates a resource problem for local justice systems.

In summary, the best available evidence indicates that the effect of the Proposed Action on victim crime is uncertain, depending greatly on local, site-specific conditions. But the two subject counties will probably experience an increase in assaults, property crimes, alcohol-related crimes, and incidents such as bad debts and insufficient funds checks.

4.2.6 CUMULATIVE EFFECTS OF POTENTIAL DEVELOPMENT INTERRELATED WITH THE PROPOSED ACTION

Development of the Riley Ridge Project proposed action may not occur in the assumed baseline environment of no expansion of current activities and limited development of other basic industrial projects. The baseline growth assumptions generate a base from which one can draw comparisons of the proposed action impacts without the effects of other potential development. This section describes the collective expansion and potential development activities which may occur in addition to the proposed action in Lincoln, Sublette, and Sweetwater counties. Table 4.2.6-1 lists those firms or activities with assumed planned expansions and new development projects as of July, 1982. Table 4.2.6-2 presents the basic employment opportunity represented in each major economic sector by county for the total of these projects.

The potential cumulative effects of these additional projects and the proposed action employment, labor force, and population are discussed in depth. The resulting cumulative effects upon housing and public services and facilities generally follow population impacts and are briefly described.

Employment Opportunity

The cumulative basic employment opportunity identified in Tables 4.2.6-3 through 4.2.6-5 includes the additional potential basic employment opportunity shown in Table 4.2.6-2 and the proposed action (Tables 4.2.1-1 through

TABLE 4.2.6-1

INTERRELATED BASIC EMPLOYMENT ACTIVITY[1] 1983-2000

County	Industrial Sector	Activity
Lincoln	Mining	FMC - Skull Point[2]
		Kemmerer Coal-Elko-Sorenson[2]
		Kemmerer Coal-North Block[2]
		Lincoln Overthrust Oil & Gas[3]
		Moxa Arch Oil and Gas[3]: Opal and Central Moxa Areas
	Construction	Kemmerer Coal[2]-North Block Oil & Gas distribution and processing[3]
	Manufacturing	Oil & Gas distribution and processing[3]
	Transportation, Communication, and Public Utilities	Utah Power & Light-Noughton[2]
Sublette	Mining	Oil and gas[3]: Moxa Arch-Sublette County
Sweetwater	Mining	Stauffer Chemical[4]
		Texasgulf[4]
		FMC[4]
		Tenneco[4]
		Allied-Chemical[4]
		Black Butte[4]
		Bridger Coal[4]
		Rocky Mountain Energy[4]-Leucite Hills
		Minerals Exploration[4]

TABLE 4.2.6-1 (CONTINUED)

County	Industrial Sector	Activity
	Construction	Stauffer Chemical[4]
		Texasgulf[4]
		FMC[4]
		Tenneco[4]
		Allied-Chemical[4]
		Pacific Power & Light[4]
		Black Butte[4]
		Bridger Coal[4]
		Rocky Mountain Energy[4]-Levcite Hills
		Chevron Chemical[4]
	Manufacturing	Church and Dwight[4]
		Chevron Chemical[5]
	Transportation, Communication, and Public Utilities	
		Union Pacific Railroad[4]
		Pacific Power & Light[4]-Jim Bridger

[1]Interrelated basic employment is added to basic growth which is expected to occur even though specific projects are not identified. This non-identified growth is derived from the Bureau of Economic Analysis data from 1969 through 1980. For the baseline, projects which were in existence in 1980 were included at the expected employment levels in 1981 and 1982. These levels were allowed to decline following 1982 but were assumed not to exceed 1982 levels. Cases which exceed 1982 levels were considered as project expansions to be included in the cumulative effects description of the proposed action.

[2]Source: Wyoming Department of Economic Planning and Development, Minerals Monitoring System, 1982.

TABLE 4.2.6-1 (CONTINUED)

[3]The expected oil and gas development employment was derived by WRC from the following sources:

- The Overthrust Industrial Association, OIA Monitoring System, Vol. I and Vol. II, (1982)
- Wyoming Department of Administration and Fiscal Control, Wyoming Population and Employment Forecast Report (July 1982)
- Overthrust Industrial Association, Overthrust News, (1981-82)
- Geological Survey of Wyoming, Report of Investigation No. 21, The Search for Oil and Gas in the Idaho-Wyoming-Utah-Salient of the Overthrust Belt (1982).

[4]The expected employment from the listed companies was developed by WRC from:

- Chevron Chemical Company, Wyoming Industrial Siting Council Permit Application (1982)
- Southwest Wyoming Industrial Association, Employment Projections (October 1981).

TABLE 4.2.6-2

INTERRELATED BASIC EMPLOYMENT BY SECTOR, 1983-2000

County	Sector	1983	1984	1985	1986	1987	1988	1989	1990	1995	2000
Lincoln	Mining	150	179	192	233	256	271	285	222	179	179
	Construction	0	0	0	0	0	0	0	0	0	0
	Manufacturing	0	0	0	0	70	70	70	70	70	70
	T.C. & P.U.	0	0	0	0	0	0	0	0	0	0
	Total	150	179	192	233	326	341	355	292	249	249
Sublette	Mining	0	0	88	49	6	0	0	0	0	0
	Construction	0	0	0	0	0	0	0	0	0	0
	Manufacturing	0	0	0	0	0	0	0	0	0	0
	T.C. & P.U.	0	0	0	0	0	0	0	0	0	0
	Total	0	0	88	49	6	0	0	0	0	0
Sweetwater	Mining	72	71	104	178	219	211	205	196	196	196
	Construction	432	1,056	1,403	487	112	182	112	61	61	61
	Manufacturing	30	30	180	416	416	416	416	416	416	416
	T.C. & P.U.	47	57	92	106	127	127	127	136	136	136
	Total	581	1,214	1,779	1,187	874	936	860	809	809	809

TABLE 4.2.6-3

PROJECTED CUMULATIVE IMPACTS ON ANNUAL EMPLOYMENT OPPORTUNITIES
IN LINCOLN COUNTY UNDER THE PROPOSED ACTION FOR THE PERIOD 1982 TO 2000

Category	1982	1983	1984	1985	1986	1987
Cumulative Impact						
Basic Employment						
Mining	0	163	253	327	377	403
Construction	0	11	263	1,115	1,148	271
Manufacturing	0	0	0	17	117	215
Transportation, Communications, and Public Utilities	0	0	1	9	43	46
Total Basic Employment	0	174	517	1,468	1,685	935
Total Indirect Employment	0	132	459	1,379	1,550	761
Total Net Employment Opportunities	0	306	976	2,847	3,235	1,696

TABLE 4.2.6-3 (CONTINUED)

Category	1988	1989	1990	1995	2000
Cumulative Impact					
Basic Employment					
Mining	420	436	321	273	273
Construction	208	306	146	0	0
Manufacturing	222	244	262	295	295
Transportation, Communications, and Public Utilities	47	49	52	57	57
Total Basic Employment	897	1,035	781	625	625
Total Indirect Employment	719	844	608	457	457
Total Net Employment Opportunities	1,616	1,879	1,389	1,082	1,082

Source: Western Research Corporation; Laramie, Wyoming, 1982.

TABLE 4.2.6-4

PROJECTED CUMULATIVE IMPACTS ON ANNUAL EMPLOYMENT OPPORTUNITIES
IN SUBLETTE COUNTY UNDER THE PROPOSED ACTION FOR THE PERIOD 1982 TO 2000

Category	1982	1983	1984	1985	1986	1987
Cumulative Impact						
Basic Employment						
Mining	0	23	155	362	341	304
Construction	0	12	392	899	615	398
Manufacturing	0	0	0	37	131	211
Transportation, Communications, and Public Utilities	0	0	3	8	35	44
Total Basic Employment	0	35	550	1,306	1,122	957
Total Indirect Employment	0	9	148	341	288	241
Total Net Employment Opportunities	0	44	698	1,647	1,410	1,198

TABLE 4.2.6-4 (CONTINUED)

Category	1988	1989	1990	1995	2000
Cumulative Impact					
Basic Employment					
Mining	301	307	204	182	181
Construction	403	436	285	0	0
Manufacturing	235	301	358	456	456
Transportation, Communications, and Public Utilities	47	48	50	50	51
Total Basic Employment	986	1,092	897	688	688
Total Indirect Employment	247	272	216	154	153
Total Net Employment Opportunities	1,233	1,364	1,113	842	841

Source: Western Research Corporation; Laramie, Wyoming, 1982.

TABLE 4.2.6-5

PROJECTED CUMULATIVE IMPACTS ON ANNUAL EMPLOYMENT OPPORTUNITIES
IN SWEETWATER COUNTY UNDER THE PROPOSED ACTION FOR THE PERIOD 1982 TO 2000

Category	1982	1983	1984	1985	1986	1987
Cumulative Impact						
Basic Employment						
Mining	0	75	89	139	216	258
Construction	0	436	1,133	1,749	851	192
Manufacturing	0	30	30	180	419	419
Transportation, Communications, and Public Utilities	0	47	57	92	107	128
Total Basic Employment	0	588	1,309	2,160	1,593	997
Total Indirect Employment	0	330	751	1,295	983	577
Total Net Employment Opportunities	0	918	2,060	3,455	2,576	1,574

TABLE 4.2.6-5 (CONTINUED)

Category	1988	1989	1990	1995	2000
Cumulative Impact					
Basic Employment					
Mining	249	244	221	222	222
Construction	241	202	102	61	61
Manufacturing	419	419	419	419	419
Transportation, Communications, and Public Utilities	128	128	138	138	138
Total Basic Employment	1,037	993	880	840	840
Total Indirect Employment	591	577	494	460	460
Total Net Employment Opportunities	1,628	1,570	1,374	1,300	1,300

Source: Western Research Corporation; Laramie, Wyoming, 1982.

4.2.1-3). During the proposed action peak construction year (1986), Lincoln County could have an additional 233 basic jobs above the proposed action for a cumulative total of 1,685. The increase in basic economic activity in the peak year (1985) in Sublette and Sweetwater counties would increase jobs above the proposed action in Sublette by 88 to a cumulative total of 1,306 and in Sweetwater by 1,779 to 2,160 basic jobs.

The large construction effort associated with the potential Chevron Chemical Phosphate Project near Rock Springs is primarily responsible for the difference in basic jobs in Sweetwater County. Cumulative construction jobs will reach 1,749 of which the proposed action will account for 346 jobs in Sweetwater County in 1985.

When the indirect jobs are included, the cumulative job opportunity in Lincoln County is expected to be 3,235 jobs above the baseline in 1986. In Sublette County there could be 1,647 jobs more than in the baseline in 1985, while in that same year an additional 3,455 jobs above baseline projections could be available in Sweetwater County.

During the operations of the proposed action from 1990 through 2000, the total (direct and indirect) cumulative impacts on employment opportunity are projected to be significantly above the baseline with Lincoln County over 1,000 jobs, Sublette over 800 jobs, and Sweetwater over 1,300 jobs.

Labor Force

The cumulative impacts on the labor force, employment, unemployment, and unemployment rates in Lincoln, Sublette and Sweetwater counties are shown in Table 4.2.6-6. The concurrent development of the proposed action and the interrelated projects will increase the peak county labor force above the baseline by 43 percent in Lincoln (1986), 70 percent in Sublette (1985), and 11 percent in Sweetwater (1985). By 1995 the labor force is projected to stabilize at 14 percent above the baseline in Lincoln County, 38 percent above baseline in Sublette County, and 4 percent above baseline in Sweetwater County.

Unemployment is expected to decline below the baseline rates in each county except for the periods following completion of major construction projects such as the Chevron Chemical Phosphate Project in Sweetwater County and the proposed action in Lincoln and Sublette counties.

Population

The projected cumulative population impact under the proposed action is shown in Table 4.2.6-7. Lincoln County is projected to increase by 6,130 (838 interrelated and 5,292 proposed action) residents above the baseline population (14,333) in 1986. As comparison with the annual population impacts of the proposed action (Table 4.2.1-6) shows, Lincoln County's cumulative population impacts result in a steadier growth from 1982 to the 1986 peak and the subsequent decline from 1987 through 2000 is not as drastic. Throughout this latter period, the county cumulative population impacts will be about 1,000 people or from 48 to 62 percent above the proposed action impacts. The

TABLE 4.2.6-6

PROJECTED CUMULATIVE IMPACT ON ANNUAL AVERAGE LABOR FORCE, EMPLOYMENT, UNEMPLOYMENT, AND UNEMPLOYMENT RATES FOR LINCOLN, SUBLETTE, AND SWEETWATER COUNTIES FOR 1982 TO 2000 UNDER THE PROPOSED ACTION[1]

Category	1982	1983	1984	1985	1986	1987
Cumulative Impact						
Labor Force						
Lincoln	0	176	690	2,186	2,504	1,380
Sublette	0	18	654	1,580	1,390	1,181
Sweetwater	0	430	1,286	2,501	2,361	1,513
Employment						
Lincoln	0	242	753	2,177	2,482	1,327
Sublette	0	42	664	1,569	1,344	1,143
Sweetwater	0	745	1,660	2,856	2,235	1,396
Unemployment						
Lincoln	0	-66	-63	9	22	53
Sublette	0	-24	-10	11	46	38
Sweetwater	0	-315	-374	-355	126	117
Annual Average Unemployment Rate - %						
Lincoln	0.0	-1.3	-1.7	-1.7	-1.7	-0.5
Sublette	0.0	-1.1	-1.1	-1.1	0.0	0.0
Sweetwater	0.0	-1.5	-1.9	-1.9	0.1	0.2

TABLE 4.2.6-6 (CONTINUED)

Category	1988	1989	1990	1995	2000
Cumulative Impact					
Labor Force					
Lincoln	1,353	1,442	1,171	918	921
Sublette	1,217	1,314	1,110	833	833
Sweetwater	1,537	1,562	1,556	1,193	1,189
Employment					
Lincoln	1,266	1,469	1,094	860	860
Sublette	1,178	1,302	1,064	806	806
Sweetwater	1,433	1,392	1,224	1,158	1,157
Unemployment					
Lincoln	87	-27	77	58	61
Sublette	39	12	46	27	27
Sweetwater	104	170	332	35	32
Annual Average Unemployment Rate - %					
Lincoln	0.0	-1.6	0.0	0.0	0.0
Sublette	0.0	-0.9	0.4	0.0	0.0
Sweetwater	0.2	0.5	1.1	0.0	0.0

Source: Western Research Corporation; Laramie, Wyoming, 1982.

[1]These figures are calculated relative to the baseline. Therefore, negative impacts on unemployment and the unemployment rate are indicative of reductions in those factors.

TABLE 4.2.6-7

PROJECTED CUMULATIVE POPULATION IMPACT UNDER THE PROPOSED ACTION

LOCATION	1982	1983	1984	1985	1986	1987
LINCOLN COUNTY	0	431	1689	5349	6130	3379
AFTON TOWN	0	2	8	22	24	16
THAYNE TOWN	0	1	3	7	7	6
DIAMONDVILLE TOWN	0	63	235	1149	1468	511
KEMMERER TOWN	0	123	463	2061	2581	988
LA BARGE TOWN	0	182	741	1386	1233	1384
COKEVILLE TOWN	0	6	23	66	72	46
RURAL	0	55	215	658	745	428
FRONTIER AREA	0	12	44	118	123	86
OPAL AREA	0	8	30	80	83	58
CONSTRUCTION CAMP	0	0	7	102	165	22
SUBLETTE COUNTY	0	38	1391	3362	2955	2512
BIG PINEY TOWN	0	10	366	879	769	660
MARBLETON TOWN	0	9	337	811	711	608
PINEDALE TOWN	0	2	67	168	152	122
RURAL	0	17	621	1503	1323	1122
CALPET AREA	0	0	17	40	35	30
DANIEL AREA	0	0	9	24	21	17
SWEETWATER COUNTY	0	859	2573	5003	4723	3026
GRANGER TOWN	0	56	164	392	397	200
GREEN RIVER CITY	0	332	993	1960	1862	1170
ROCK SPRINGS CITY	0	290	872	1638	1524	1021
SOUTH SUPERIOR TOWN	0	23	70	122	109	81
WAMSUTTER TOWN	0	12	36	58	50	41
RURAL	0	146	437	834	781	513

(CONTINUED ON NEXT PAGE)

TABLE 4.2.6-7

PROJECTED CUMULATIVE POPULATION IMPACT UNDER THE PROPOSED ACTION (CONTINUED)

LOCATION	1988	1989	1990	1995	2000
LINCOLN COUNTY	3313	3530	2860	2248	2253
AFTON TOWN	17	17	14	11	11
THAYNE TOWN	7	6	6	4	4
DIAMONDVILLE TOWN	424	531	379	327	327
KEMMERER TOWN	857	1028	758	638	639
LA BARGE TOWN	1538	1452	1297	952	954
COKEVILLE TOWN	47	48	40	31	31
RURAL	424	447	365	285	286
FRONTIER AREA	90	96	78	61	61
OPAL AREA	61	65	53	42	42
CONSTRUCTION CAMP	0	0	0	0	0
SUBLETTE COUNTY	2590	2795	2361	1773	1773
BIG PINEY TOWN	682	735	621	466	466
MARBLETON TOWN	627	677	572	429	429
PINEDALE TOWN	125	135	114	86	86
RURAL	1157	1248	1054	792	792
CALPET AREA	31	33	28	21	21
DANIEL AREA	18	19	16	12	12
SWEETWATER COUNTY	3074	3123	3113	2387	2377
GRANGER TOWN	191	206	196	155	154
GREEN RIVER CITY	1184	1208	1200	922	918
ROCK SPRINGS CITY	1047	1054	1058	807	804
SOUTH SUPERIOR TOWN	85	84	85	64	64
WAMSUTTER TOWN	44	43	44	33	33
RURAL	524	529	530	405	403

SOURCE: WESTERN RESEARCH CORPORATION; LARAMIE, WYOMING (1982)

decrease in population from the peak construction year (1986) to 1987 is expected to be a 55 percent drop under the proposed action yet is a 45 percent decline when cumulative effects are considered. This smoothing effect is more pronounced between these years in Diamondville, Kemmerer, and LaBarge. Population in LaBarge continues to increase through 1988 before beginning the decline begun in 1987 in the other effected towns in Lincoln County.

Sublette County is expected to grow by 3,362 (165 interrelated and 3,197 proposed action) people above the 4,809 baseline population projected for 1985. The cumulative effects on Sublette County population are only significant in 1985, 1986, and 1987. In all other years, differences with the proposed action are not expected. These limited impacts of interrelated project will slightly add to the proposed action population expected for Big Piney, Marbleton, and Pinedale in these three years.

The largest population changes when cumulative effects are considered occur in Sweetwater County since the proposed action impacts are small compared to those of other potential developments in the county. In the peak construction year of 1986, cumulative population impacts in Sweetwater County are 4,723 (3,316 inter-related and 1,407 proposed action) above the baseline population of 45,292. Granger, the only significantly impacted town in the county, is projected to increase its 1986 population by 397 (279 interrelated and 118 proposed action). By 1995, county cumulative population impacts are projected to be 2,387 above the baseline (53,426), while Granger's cumulative impacts are 155 above the 226 in the baseline.

Housing

Housing demand will increase and make potential housing shortages worse throughout the three county area when cumulative effects are considered. However, since the expected population growth is less volatile between years, the private housing market may be more attractive for developers than portrayed under the proposed action.

Public Services and Facilities

The cumulative impacts on public services and facilities under the proposed action will closely parallel the population impacts discussed above. In Lincoln and Sublette counties, the majority of the impacts on public services and facilities are expected to occur as a result of development of the Riley Ridge project. In Sweetwater County the impacts of development of the proposed action are relatively slight both in comparison to the existing service capacities in the area and the expected affects of other development in the area.

In Lincoln County, cumulative service and facility impacts would be similar to those discussed for the proposed action (see Section 4.2.3). The net effect of the cumulative impacts would be to accelerate the changes in demand for public services and facilities. That is, the changes in public service capacity expected with development of the proposed action would need to occur one year earlier to accommodate cumulative impacts.

Cumulative impacts on public services and facilities in Sublette County are expected to be almost identical to those for the proposed action because development of the Riley Ridge project constitutes almost all of the expected growth in the county. No changes in the overall magnitude or timing of service and facility impacts are projected.

Impacts on public services and facilities in Sweetwater County are transitory under the proposed action. They occur primarily during the peak construction period in 1985 and 1986. The interrelated projects discussed above are expected to cause the vast majority of the impacts in the county. While the public service impacts associated with the Riley Ridge project may temporarily aggravate problems which may occur in 1985 and 1986, the overall effect of the proposed action is a minor part of the cumulative impacts.

4.3 COMPONENT ALTERNATIVES

Based on the information currently available, none of the component alternatives is expected to produce any significant effect on the socioeconomic analysis with the exception of employee housing as discussed below.

The local housing market is projected to experience slightly increasing demand from 1982 through 1990 in all jurisdictions within Lincoln, Sublette, and Sweetwater counties. The increased housing demand associated with the proposed action indicates a need for employee housing in Lincoln County in or near the towns of Kemmerer and Diamondville in addition to the proposed man camp. Employee housing which meets the needs of both married and single direct project employees will reduce the impacts on the local housing market and allow it to meet the housing needs of induced employment accompanying the project development.

The requirement for direct employee housing is particularly significant in the Towns of Big Piney and Marbleton in Sublette County and the Town of LaBarge in Lincoln County. Projected housing demand in each of these three towns is significantly beyond the response capability of the housing market currently existing in these towns. Since these towns are within 21 miles of each other and are within commuting distance of the Sublette County project sites, development of employee housing either by individual project members or as a joint effort is a component option worthy of further consideration.

4.4 BUCKHORN ALTERNATIVE

Based on the information currently available, development of the Riley Ridge Project under the Buckhorn alternative would not be expected to produce any socioeconomic impacts that differ from those generated by the proposed action.

4.5 SHUTE CREEK ALTERNATIVE

4.5.1 GENERAL ECONOMIC CONDITIONS AND POPULATION CHARACTERISTICS IN SOUTHWESTERN WYOMING UNDER THE SHUTE CREEK ALTERNATIVE

Employment

Tables 4.5.1-1, 4.5.1-2, and 4.5.1-3 present the net employment opportunity effects associated with the project development for the three counties under the Shute Creek alternative. The major impacts are expected to occur in the mining, construction, manufacturing, and transportation, communications, and public utilities sectors. Under the Shute Creek alternative most of the expected regional impacts from the Riley Ridge development are located in Lincoln County and this is clearly demonstrated by the net employment opportunity projections below. During the peak year (1986), in terms of total net employment opportunities in Lincoln County, the Shute Creek alternative results in an additional 3,200 jobs, about 45 percent more than expected under the baseline (Table 3.2.1-1) and 13 percent more than the proposed action (Table 4.2.1-1). In 1990 the total employment opportunities are increased by almost 21 percent compared to the baseline for Lincoln County and 71 percent above the proposed action.

For Sweetwater County under the Shute Creek alternative, the direction and rates of change in total jobs from 1982 to 1990 in the mining sector remain virtually unchanged in comparison to the baseline. The total number of jobs in the mining sector in Lincoln and Sublette counties increase by approximately 21 percent and 27 percent, respectively, (about the same as in the proposed action) compared to a positive 14 percent and negative 33 percent change projected under the baseline.

The projected decreases in total jobs in the construction sector between 1982 and 1990 in Lincoln and Sweetwater counties under the baseline are reversed in Lincoln and reduced in Sweetwater under the Shute Creek alternative. In Sublette County total construction jobs are projected to increase by approximately 30 percent between 1982 and 1990 under the Shute Creek alternative; a 14 percent increase is projected for construction jobs with the baseline, while over a 95 percent increase is projected in the proposed action.

Under the Shute Creek alternative over one-half of the additional manufacturing jobs projected to be generated in the proposed action for Sublette County by 1990 are eliminated. The increase projected for this sector under this alternative is approximately 322 percent, much above the zero change expected in Sublette County with no development. No significant change in manufacturing job development is expected in Sweetwater County under the Shute Creek alternative from those changes projected under the baseline. The Shute Creek alternative results in the greatest degree of projected changes in manufacturing jobs in Lincoln County, with an estimated 63 percent total increase between 1982 and 1990 compared to a projected 3 percent increase with the baseline.

TABLE 4.5.1-1

PROJECTED ANNUAL EMPLOYMENT OPPORTUNITIES IN LINCOLN COUNTY ASSOCIATED WITH THE DEVELOPMENT OF THE RILEY RIDGE PROJECT UNDER THE SHUTE CREEK ALTERNATIVE FOR THE PERIOD 1982 TO 2000

Category	1982	1983	1984	1985	1986	1987
Shute Creek Alternative Impact						
Direct Employment						
Mining	0	12	73	134	143	146
Construction	0	11	359	1,299	1,279	398
Manufacturing	0	0	0	39	180	245
Transportation, Communications, and Public Utilities	0	0	1	9	43	46
Total Direct Employment	0	23	433	1,481	1,645	835
Total Indirect Employment	0	22	422	1,435	1,555	748
Total Net Employment Opportunities	0	45	855	2,916	3,200	1,583

TABLE 4.5.1-1 (CONTINUED)

Category	1988	1989	1990	1995	2000
Shute Creek Alternative Impact					
Direct Employment					
Mining	148	150	98	93	93
Construction	347	460	285	0	0
Manufacturing	266	337	406	526	526
Transportation, Communications, and Public Utilities	47	49	52	57	57
Total Direct Employment	808	996	841	676	676
Total Indirect Employment	717	883	716	526	526
Total Net Employment Opportunities	1,525	1,879	1,557	1,202	1,202

Source: Western Research Corporation; Laramie, Wyoming, 1982.

TABLE 4.5.1-2

PROJECTED ANNUAL EMPLOYMENT OPPORTUNITIES IN SUBLETTE COUNTY ASSOCIATED WITH THE DEVELOPMENT OF THE RILEY RIDGE PROJECT UNDER THE SHUTE CREEK ALTERNATIVE FOR THE PERIOD 1982 TO 2000

Category	1982	1983	1984	1985	1986	1987
Shute Creek Alternative Impact						
Direct Employment						
Mining	0	23	155	274	292	298
Construction	0	12	234	599	401	190
Manufacturing	0	0	0	14	65	105
Transportation, Communications, and Public Utilities	0	0	3	8	35	44
Total Direct Employment	0	35	392	895	793	637
Total Indirect Employment	0	9	105	240	208	162
Total Net Employment Opportunities	0	44	497	1,135	1,001	799

TABLE 4.5.1-2 (CONTINUED)

Category	1988	1989	1990	1995	2000
Shute Creek Alternative Impact					
Direct Employment					
Mining	301	307	204	182	182
Construction	175	183	57	0	0
Manufacturing	116	128	132	138	138
Transportation, Communications, and Public Utilities	47	48	50	50	50
Total Direct Employment	639	666	443	370	370
Total Indirect Employment	161	168	107	88	88
Total Net Employment Opportunities	800	834	550	458	458

Source: Western Research Corporation; Laramie, Wyoming, 1982.

TABLE 4.5.1-3

PROJECTED ANNUAL EMPLOYMENT OPPORTUNITIES IN SWEETWATER COUNTY ASSOCIATED WITH THE DEVELOPMENT OF THE RILEY RIDGE PROJECT UNDER THE SHUTE CREEK ALTERNATIVE FOR THE PERIOD 1982 TO 2000

Category	1982	1983	1984	1985	1986	1987
Shute Creek Alternative Impact						
Direct Employment						
Mining	0	3	18	35	38	38
Construction	0	4	113	414	413	127
Manufacturing	0	0	0	1	7	9
Transportation, Communications, and Public Utilities	0	0	0	0	1	1
Total Direct Employment	0	7	131	450	459	175
Total Indirect Employment	0	6	112	383	390	147
Total Net Employment Opportunities	0	13	243	833	849	322

TABLE 4.5.1-3 (CONTINUED)

Category	1988	1989	1990	1995	2000
Shute Creek Alternative Impact					
Direct Employment					
Mining	38	39	25	26	26
Construction	110	148	93	0	0
Manufacturing	10	12	15	20	20
Transportation, Communications, and Public Utilities	1	1	2	2	2
Total Direct Employment	159	200	135	48	48
Total Indirect Employment	133	168	112	36	36
Total Net Employment Opportunities	292	368	247	84	84

Source: Western Research Corporation; Laramie, Wyoming, 1982.

The implementation of the Shute Creek alternative results in no significant changes in projected employment opportunities in the transportation, communication, and public utilities (T.C. & P.U.) sector in Sweetwater County from those expected with the baseline. The increases in employment opportunities in that sector in Sublette County are estimated at 46 percent, much above the zero rate of change projected in the baseline yet below the 57 percent increase in the proposed action. The number of jobs in the T.C. & P.U. sector for Lincoln County are projected to increase by approximately 15 percent between 1982 and 1990 as is the proposed action, compared to a projected increase of just over 5 percent for the baseline.

Personal Earnings

The impact on total projected personal earnings in constant 1980 dollars under the Shute Creek alternative are presented in Table 4.5.1-4 for Lincoln, Sublette, and Sweetwater counties from 1982 to 1990. The net economic impacts are the greatest in Lincoln County with total constant dollar earnings increasing by nearly 44 percent from 1982 to 1990 compared to a projected 5 percent increase under the baseline. Total personal earnings are estimated to increase from $107.2 million in 1982 to $154.4 million in 1990, with a peak in personal earnings of approximately $194.9 million in 1986. This is nearly an 83 percent increase in projected earnings for that year over the baseline. The net impact in constant 1980 dollar earnings for 1986 is estimated at nearly $88 million.

Total personal earnings in Sublette County are projected to increase by approximately 46 percent from 1982 to 1990 under the Shute Creek alternative compared to a projected decrease in constant dollar earnings with the baseline. Under this alternative, projected personal earnings increase from approximately $34.8 million in 1982 to nearly $51 million in 1990. Total constant dollar earnings peak at approximately $73 million in 1985, resulting in a positive net impact of almost $39 million for that year alone. This is an increase of approximately 113 percent in personal earnings for Sublette County in 1985 over the projected level under the baseline. Net increases in constant dollar personal earnings for Sublette County should remain over $14 million after the year 1990 under this alternative.

Sweetwater County shows a projected increase in constant dollar earnings from 1982 to 1990 of approximately 9.4 percent compared to a nearly 7.6 percent increase under the baseline. Total personal earnings (in 1980 dollars) are projected to increase from approximately $471.7 million in 1982 to about $516.2 million in 1990. The peak net impact in personal earnings is estimated at approximately $27.7 million in 1986, an increase of approximately 6 percent over the projected personal earnings under the baseline. Over 9 percent of the increase in total personal earnings in Sweetwater County under the Shute Creek alternative is expected to occur in the Town of Granger.

Labor Force

Table 4.5.1-5 presents projected impact on the mean annual labor force, employment, unemployment, and unemployment rates for Lincoln, Sublette, and Sweetwater counties from 1982 to 1990 under the Shute Creek alternative. The

TABLE 4.5.1-4

PROJECTED ANNUAL IMPACT ON PERSONAL EARNINGS IN THOUSANDS OF CONSTANT 1980 DOLLARS FOR LINCOLN, SUBLETTE, AND SWEETWATER COUNTIES UNDER THE SHUTE CREEK ALTERNATIVE

	1982	1983	1984	1985	1986	1987
Shute Creek Alternative Impact						
Lincoln County	0	1,416	25,841	80,841	88,177	44,292
Sublette County	0	1,502	17,022	38,812	33,774	26,326
Sweetwater County	0	410	7,592	25,440	27,690	11,330

	1988	1989	1990	1995	2000
Shute Creek Alternative Impact					
Lincoln County	42,474	52,002	42,347	28,059	28,131
Sublette County	26,179	27,141	17,433	13,972	13,969
Sweetwater County	10,049	13,001	8,886	2,258	2,270

Source: Western Research Corporation; Laramie, Wyoming, 1982.

TABLE 4.5.1-5

PROJECTED IMPACT ON ANNUAL AVERAGE LABOR FORCE, EMPLOYMENT, UNEMPLOYMENT, AND UNEMPLOYMENT RATES, FOR LINCOLN, SUBLETTE, AND SWEETWATER COUNTIES FOR 1982 TO 2000 UNDER THE SHUTE CREEK ALTERNATIVE[1]

Category	1982	1983	1984	1985	1986	1987
Total Labor Force						
Lincoln	0	0	595	2,224	2,460	1,354
Sublette	0	18	459	1,104	985	787
Sweetwater	0	0	226	768	796	302
Total Employment						
Lincoln	0	34	651	2,220	2,445	1,220
Sublette	0	42	473	1,080	953	762
Sweetwater	0	12	218	748	762	290
Total Unemployment						
Lincoln	0	-34	-56	4	15	134
Sublette	0	-24	-14	24	32	25
Sweetwater	0	-12	8	20	34	12
Annual Average Unemployment Rate - %						
Lincoln	0	-0.5	-1.4	-1.7	-1.7	0.7
Sublette	0	-1.1	-1.1	0.0	0.0	0.0
Sweetwater	0	0.0	0.0	0.0	0.0	0.0

TABLE 4.5.1-5 (CONTINUED)

Category	1988	1989	1990	1995	2000
Total Labor Force					
Lincoln	1,263	1,408	1,292	1,010	1,013
Sublette	790	823	554	452	452
Sweetwater	307	312	304	82	79
Total Employment					
Lincoln	1,176	1,451	1,210	947	947
Sublette	764	796	526	438	438
Sweetwater	263	331	222	77	77
Total Unemployment					
Lincoln	87	-43	82	63	66
Sublette	26	27	28	14	14
Sweetwater	44	-19	82	5	2
Annual Average Unemployment Rate - %					
Lincoln	0.1	-1.7	0.0	0.0	0.0
Sublette	0.0	0.0	0.4	0.0	0.0
Sweetwater	0.1	-0.1	0.3	0.0	0.0

Source: Western Research Corporation; Laramie, Wyoming, 1982.

[1]These figures are calculated relative to the baseline. Therefore, negative impacts on unemployment and the unemployment rate are indicative of reductions in those factors.

total labor force in Lincoln County is expected to increase by approximately 24 percent between 1982 and 1990, compared to an estimated 2.4 percent increase under the baseline. The rate of unemployment is expected to decrease to about 4.8 percent during the development period (1983 to 1986), compared to an estimated 6.5 percent unemployment rate under the baseline.

The total labor force in Sublette County is projected to increase by about 23 percent between 1982 and 1990 under this alternative, compared to a slight decrease under the baseline. The level of unemployment is estimated at 2.2 percent during the construction phase, while under the baseline, unemployment is estimated at 3.3 percent during most of these years.

There is a slight increase in the growth for labor force and employment in Sweetwater County under the Shute Creek alternative compared to the baseline. The total labor force is projected to increase by approximately 12 percent from 1982 to 1990, compared to a 10.6 percent increase under the baseline. The primary difference between the baseline and the Shute Creek alternative is a very slight increase in unemployment in the late 1980s as construction activities on the Riley Ridge Project are completed.

Population

Table 4.5.1-6 presents the net annual population impacts for Lincoln, Sublette, and Sweetwater counties, respectively, under the Shute Creek alternative. Under this alternative, the total Lincoln County population is projected to increase by approximately 30 percent from 1982 to 1990, about four times the growth expected under the baseline. A continuous growth in population is not observed over the eight year period, however. From 1982 to 1986 the projected county population increases by nearly 46 percent, peaking in 1986 at 20,357 people (compared with 19,625 in the proposed action), and then decreasing by about 10.6 percent from 1986 to 1990.

The major changes in the population distributions within Lincoln County from those observed in the projected population under the baseline occur in the towns of LaBarge and Diamondville. Under the baseline in 1990, LaBarge and Diamondville account for approximately 2.5 percent and 8.2 percent of the projected county population, respectively, compared to a 4.7 and 11.2 percent share, respectively, under this alternative. In the peak years of net population impacts, La Barge accounts for approximately 6.5 percent of the total county population (1985) and Diamondville accounts for about 13.6 percent (1986) of the total population. This is an increase of approximately 265 and 136 percent in the projected populations for the towns of LaBarge and Diamondville, respectively, over the projected populations under the baseline in those years. The total population increase for these two towns from 1982 to 1990 are estimated at approximately 150 and 78 percent, respectively.

The projected population for Sublette County exhibits an increase of nearly 25 percent from 1982 to 1990 under this alternative, compared to the almost zero rate of change expected under the baseline. The total net population increase in the peak year (1985) is estimated at 2,349 people, which is an increase of approximately 49 percent in the total county population for that same year over the estimated population under the baseline. The growth in the projected

TABLE 4.5.1-6

SHUTE CREEK ALTERNATIVE POPULATION IMPACT WITHIN THE RILEY RIDGE STUDY AREA

LOCATION	1982	1983	1984	1985	1986	1987
LINCOLN COUNTY	0	0	1457	5445	6024	3316
AFTON TOWN	0	0	6	20	22	13
THAYNE TOWN	0	0	2	6	5	4
DIAMONDVILLE TOWN	0	0	323	1374	1598	774
KEMMERER TOWN	0	0	576	2396	2764	1367
LA BARGE TOWN	0	0	354	928	843	715
COKEVILLE TOWN	0	0	18	63	68	40
RURAL	0	0	179	658	724	404
FRONTIER AREA	0	0	38	122	120	85
OPAL AREA	0	0	26	83	82	58
CONSTRUCTION CAMP	0	0	7	102	165	22
SUBLETTE COUNTY	0	38	976	2349	2094	1676
BIG PINEY TOWN	0	10	255	609	540	437
MARBLETON TOWN	0	9	235	564	501	404
PINEDALE TOWN	0	2	49	124	114	86
RURAL	0	17	437	1052	939	750
CALPET AREA	0	0	12	28	24	20
DANIEL AREA	0	0	7	17	16	12
SWEETWATER COUNTY	0	0	452	1536	1592	604
GRANGER TOWN	0	0	36	134	145	50
GREEN RIVER CITY	0	0	177	608	632	238
ROCK SPRINGS CITY	0	0	147	491	505	196
SOUTH SUPERIOR TOWN	0	0	11	35	35	14
WAMSUTTER TOWN	0	0	5	15	15	7
RURAL	0	0	75	253	261	100

(CONTINUED ON NEXT PAGE)

TABLE 4.5.1-6

SHUTE CREEK ALTERNATIVE POPULATION IMPACT WITHIN THE RILEY RIDGE STUDY AREA (CONTINUED)

LOCATION	1988	1989	1990	1995	2000
LINCOLN COUNTY	3093	3445	3163	2474	2480
AFTON TOWN	12	13	12	9	9
THAYNE TOWN	4	4	3	3	3
DIAMONDVILLE TOWN	711	838	818	618	619
KEMMERER TOWN	1260	1470	1421	1079	1081
LA BARGE TOWN	692	661	493	438	439
COKEVILLE TOWN	37	40	36	29	29
RURAL	378	418	381	299	300
FRONTIER AREA	95	95	87	68	68
OPAL AREA	58	64	59	46	46
CONSTRUCTION CAMP	0	0	0	0	0
SUBLETTE COUNTY	1680	1749	1179	962	964
BIG PINEY TOWN	438	455	305	250	250
MARBLETON TOWN	405	421	283	231	232
PINEDALE TOWN	85	91	63	50	51
RURAL	752	783	529	431	432
CALPET AREA	20	21	14	11	11
DANIEL AREA	12	13	9	7	7
SWEETWATER COUNTY	614	624	608	164	157
GRANGER TOWN	50	53	54	14	14
GREEN RIVER CITY	241	246	241	65	62
ROCK SPRINGS CITY	199	201	194	53	50
SOUTH SUPERIOR TOWN	14	14	13	4	4
WAMSUTTER TOWN	7	7	6	2	2
RURAL	102	103	100	27	26

SOURCE: WESTERN RESEARCH CORPORATION; LARAMIE, WYOMING (1982)

population in Sublette County is not a continuous one, but, like Lincoln County, exhibits an increase from 1982 to 1985 and then a decrease from 1985 to 1990. Total county population is projected to increase by about 50 percent from 1982 to 1985, and then decrease by approximately 17 percent from 1986 to 1990.

The towns of Big Piney and Marbleton experience the greatest degree of impact in terms of total population growth, increasing in population from 1982 to 1990 by approximately 55 percent and 50 percent, respectively. This results in a change in the 1990 relative size of these towns from about 12 percent of the total county population in each town under the baseline to about 14 percent of the total population for each town under the Shute Creek alternative.

Expected population impacts for Sweetwater County remain small under the Shute Creek alternative, with total county population growth through 1990 projected at approximately 12.1 percent, compared to an estimated 10.7 percent increase under the baseline. The major impact in net population growth under this alternative is expected to occur in the Town of Granger, where the total population is projected to increase by approximately 39 percent from 1982 to 1990, compared to the 10 percent increase projected under the baseline. The total net population impact for Granger is estimated at 145 people in 1986 (the peak year), this being a 76 percent increase in population over the baseline estimate for that year. No significant changes are expected to occur in the distribution and relative sizes of the populations in Sweetwater County under the Shute Creek alternative compared to the baseline.

Population projections were also made to the year 2000 for the Shute Creek alternative. These results indicate a decreasing level of net impacts after 1990 in all three counties. This downward trend stabilizes by 1995, with net impacts in population remaining very constant to the year 2000. These results indicate that any further attention to the impact analysis after the year 1990 is unnecessary. The estimated net impacts under this alternative peak during the period of 1985 to 1986, and any necessary facilities or programs initiated during this time to meet these new demands should be adequate to the year 2000.

As was noted in Section 3.2.1, the age and sex characteristics of the population in each of the three counties is expected to remain essentially unchanged from 1980 to 1990 under the baseline. With the Shute Creek alternative, the characteristics of the population in Sweetwater County will not change given the limited impacts expected there. In Lincoln and Sublette counties the changes may be more noticeable but are not expected to be significant (Table 4.5.1-7). In the peak construction years, the relative concentration of individuals in the 20 to 34 year old group will increase by approximately 2 percent. The decreases to compensate for this shift are distributed throughout the younger and older age groups.

4.5.2 HOUSING

The housing demand projections associated with the Shute Creek alternative for

TABLE 4.5.1-7

PROJECTED SHUTE CREEK ALTERNATIVE IMPACT ON POPULATION DEMOGRAPHICS

CATEGORY	1982	1983	1984	1985	1986	1987
LINCOLN COUNTY						
0 TO 4 YEARS	0	0	175	653	723	398
5 TO 19 YEARS	0	0	383	1432	1584	872
20 TO 34 YEARS	0	0	444	1661	1837	1011
35 TO 54 YEARS	0	0	275	1029	1139	627
55 YEARS AND OLDER	0	0	179	670	741	408
TOTAL POPULATION IMPACT	0	0	1457	5445	6024	3316
SUBLETTE COUNTY						
0 TO 4 YEARS	0	5	117	282	251	201
5 TO 19 YEARS	0	10	257	618	551	441
20 TO 34 YEARS	0	12	298	716	639	511
35 TO 54 YEARS	0	7	184	444	396	317
55 YEARS AND OLDER	0	5	120	289	258	206
TOTAL POPULATION IMPACT	0	38	976	2349	2094	1676

(CONTINUED ON NEXT PAGE)

TABLE 4.5.1-7

PROJECTED SHUTE CREEK ALTERNATIVE IMPACT ON POPULATION DEMOGRAPHICS (CONTINUED)

CATEGORY	1988	1989	1990	1995	2000
LINCOLN COUNTY					
0 TO 4 YEARS	371	413	380	297	298
5 TO 19 YEARS	813	906	832	651	652
20 TO 34 YEARS	943	1051	965	755	756
35 TO 54 YEARS	585	651	598	468	469
55 YEARS AND OLDER	380	424	389	304	305
TOTAL POPULATION IMPACT	3093	3445	3163	2474	2480
SUBLETTE COUNTY					
0 TO 4 YEARS	202	210	141	115	116
5 TO 19 YEARS	442	460	310	253	254
20 TO 34 YEARS	512	533	360	293	294
35 TO 54 YEARS	318	331	223	182	182
55 YEARS AND OLDER	207	215	145	118	119
TOTAL POPULATION IMPACT	1680	1749	1179	962	964

SOURCE: WESTERN RESEARCH CORPORATION; LARAMIE, WYOMING (1982)

the Riley Ridge Project are presented in Tables 4.5.2-1 through 4.5.2-9. The projection methods and the consideration of the Northwest Pipeline man camp in Lincoln County are the same as described in Section 4.2.2 above.

Lincoln County

The Shute Creek alternative will result in a 1986 peak housing demand that is 55 percent above the baseline projections for Lincoln County. This is a net increase of 2,529 units demanded (Table 4.5.2-1) above the baseline. The 1990 net housing demand (1,022 units) for the Shute Creek alternative is about 72 percent higher than the 1990 net demand for the proposed action (593 units). The analysis of the Shute Creek alternative indicates a slightly higher temporary housing requirement than for the proposed action in Lincoln County. However, the decline in housing demand from the peak in 1986 to 1990 demand is not as drastic in this alternative thereby potentially providing for a more stable growth of the county housing market.

Kemmerer and Diamondville are projected to follow the county with increased housing demand above the proposed action in this alternative. These towns are projected to have from a 24 to 26 percent increase during 1986 in net impact above that of the proposed action. In 1990, Kemmerer and Diamondville are projected to have a net increase of over three times that of the proposed action. LaBarge, on the other hand, is projected to reach its peak net impact in 1985 which is 22 percent lower than can be expected in the proposed action. The 1990 net impact difference is a reduction of 41 percent from that projected for the proposed action.

Sublette County

The Shute Creek alternative results in a peak housing demand of 2,124 units in 1985 (Table 4.5.2-5), which is 77 percent higher than the 1,199 units of demand projected without the project. This peak demand results in a 34 percent lower net impact than projected for the proposed action in 1985. By 1990, the Shute Creek alternative is expected to result in a net increase of 464 units in Sublette County compared with a county net increase of 928 units under the proposed action.

Housing demand in Big Piney (Table 4.5.2-6) and Marbleton (Table 4.5.2-7) is expected to be almost 68 percent more than the baseline projections in 1985; however, this represents a 39 and 36 percent reduction, respectively, in the expected demand for the proposed action. While the 1990 through 2000 housing demand is projected to be about 50 percent above that in the baseline for both towns, this alternative is about 50 percent below that expected from 1990 to 2000 in the proposed action. Pinedale is expected to need 11 percent more housing in 1985 (Table 4.5.2-8) than in the baseline and about 4 percent above baseline in 2000.

Town of Granger, Sweetwater County

The housing demand associated with the Riley Ridge Project in Granger (Table 4.5.2-9) increases from 46 units under the proposed action to 56 units with the Shute Creek alternative in the peak year, 1986. This alternative

TABLE 4.5.2-1

PROJECTED IMPACT OF THE SHUTE CREEK ALTERNATIVE ON HOUSING DEMAND IN LINCOLN COUNTY

Housing Type	1982	1983	1984	1985	1986	1987
Shute Creek Alternative Impact						
Single Family	0	0	234	917	1,124	632
Mobile Home	0	0	147	433	340	259
Multi-Family	0	0	39	128	122	79
Other	0	0	76	632	943	175
Total	0	0	496	2,110	2,529	1,145

Housing Type	1988	1989	1990	1995	2000
Shute Creek Alternative Impact					
Single Family	581	640	634	496	497
Mobile Home	271	306	250	195	196
Multi-Family	78	88	76	59	59
Other	71	79	62	49	49
Total	1,001	1,113	1,022	799	801

Source: Western Research Corporation; Laramie, Wyoming (1982).

TABLE 4.5.2-2

PROJECTED IMPACT OF THE SHUTE CREEK ALTERNATIVE ON HOUSING DEMAND IN THE TOWN OF KEMMERER

Housing Type	1982	1983	1984	1985	1986	1987
Shute Creek Alternative Impact						
Single Family	0	0	144	598	691	341
Mobile Home	0	0	38	156	180	90
Multi-Family	0	0	29	115	133	65
Other	0	0	20	81	94	46
Total	0	0	231	950	1,098	542

Housing Type	1988	1989	1990	1995	2000
Shute Creek Alternative Impact					
Single Family	314	368	345	262	262
Mobile Home	82	96	90	68	68
Multi-Family	60	70	68	52	52
Other	42	50	48	36	36
Total	498	584	551	418	418

Source: Western Research Corporation; Laramie, Wyoming (1982).

TABLE 4.5.2-3

PROJECTED IMPACT OF THE SHUTE CREEK ALTERNATIVE ON HOUSING DEMAND IN THE TOWN OF DIAMONDVILLE

Housing Type	1982	1983	1984	1985	1986	1987
Shute Creek Alternative Impact						
Single Family	0	0	51	219	256	123
Mobile Home	0	0	59	245	284	137
Multi-Family	0	0	6	23	28	13
Other	0	0	1	2	3	1
Total	0	0	117	489	571	274

Housing Type	1988	1989	1990	1995	2000
Shute Creek Alternative Impact					
Single Family	113	134	130	98	98
Mobile Home	127	150	145	110	110
Multi-Family	12	15	14	10	10
Other	1	1	1	1	1
Total	253	300	290	219	219

Source: Western Research Corporation; Laramie, Wyoming (1982).

TABLE 4.5.2-4

PROJECTED IMPACT OF THE SHUTE CREEK ALTERNATIVE ON HOUSING DEMAND IN THE TOWN OF LABARGE

Housing Type	1982	1983	1984	1985	1986	1987
Shute Creek Alternative Impact						
Single Family	0	0	76	203	184	155
Mobile Home	0	0	51	136	123	103
Multi-Family	0	0	9	24	23	19
Other	0	0	0	0	0	0
Total	0	0	136	363	330	277

Housing Type	1988	1989	1990	1995	2000
Shute Creek Alternative Impact					
Single Family	151	145	107	95	95
Mobile Home	101	96	72	64	64
Multi-Family	19	17	12	11	11
Other	0	0	0	0	0
Total	271	258	191	170	170

Source: Western Research Corporation; Laramie, Wyoming (1982).

TABLE 4.5.2-5

PROJECTED IMPACT OF THE SHUTE CREEK ALTERNATIVE ON HOUSING DEMAND IN SUBLETTE COUNTY

Housing Type	1982	1983	1984	1985	1986	1987
Shute Creek Alternative Impact						
Single Family	0	8	138	318	336	289
Mobile Home	0	4	161	396	312	234
Multi-Family	0	3	44	107	101	82
Other	0	0	42	104	76	55
Total	0	15	385	925	825	660

Housing Type	1988	1989	1990	1995	2000
Shute Creek Alternative Impact					
Single Family	297	311	253	207	207
Mobile Home	229	234	124	101	101
Multi-Family	84	88	64	52	52
Other	52	54	23	19	19
Total	662	687	464	379	379

Source: Western Research Corporation; Laramie, Wyoming (1982).

TABLE 4.5.2-6

PROJECTED IMPACT OF THE SHUTE CREEK ALTERNATIVE ON HOUSING DEMAND IN THE TOWN OF BIG PINEY

Housing Type	1982	1983	1984	1985	1986	1987
Shute Creek Alternative Impact						
Single Family	0	3	69	164	147	118
Mobile Home	0	1	28	66	59	48
Multi-Family	0	0	10	24	22	17
Other	0	0	1	1	1	1
Total	0	4	108	255	229	184

Housing Type	1988	1989	1990	1995	2000
Shute Creek Alternative Impact					
Single Family	118	123	82	67	67
Mobile Home	48	50	34	28	28
Multi-Family	18	18	13	11	11
Other	1	1	1	1	1
Total	185	192	130	107	107

Source: Western Research Corporation; Laramie, Wyoming (1982).

TABLE 4.5.2-7

PROJECTED IMPACT OF THE SHUTE CREEK ALTERNATIVE ON HOUSING DEMAND IN THE TOWN OF MARBLETON

Housing Type	1982	1983	1984	1985	1986	1987
Shute Creek Alternative Impact						
Single Family	0	2	38	91	81	66
Mobile Home	0	2	37	87	78	63
Multi-Family	0	0	3	9	9	5
Other	0	0	0	0	0	0
Total	0	4	78	187	168	134

Housing Type	1988	1989	1990	1995	2000
Shute Creek Alternative Impact					
Single Family	65	69	46	37	37
Mobile Home	63	65	45	37	37
Multi-Family	7	7	5	4	4
Other	0	0	0	0	0
Total	135	141	96	78	78

Source: Western Research Corporation; Laramie, Wyoming (1982).

TABLE 4.5.2-8

PROJECTED IMPACT OF THE SHUTE CREEK ALTERNATIVE ON HOUSING DEMAND IN THE TOWN OF PINEDALE

Housing Type	1982	1983	1984	1985	1986	1987
Shute Creek Alternative Impact						
Single Family	0	0	7	17	18	15
Mobile Home	0	0	8	21	17	12
Multi-Family	0	0	2	6	5	4
Other	0	0	2	5	4	3
Total	0	0	19	49	44	34

Housing Type	1988	1989	1990	1995	2000
Shute Creek Alternative Impact					
Single Family	15	16	14	11	11
Mobile Home	12	12	7	5	5
Multi-Family	4	5	3	3	3
Other	3	3	1	1	1
Total	34	36	25	20	20

Source: Western Research Corporation; Laramie, Wyoming (1982).

TABLE 4.5.2-9

PROJECTED IMPACT OF THE SHUTE CREEK ALTERNATIVE ON HOUSING DEMAND IN THE TOWN OF GRANGER, SWEETWATER COUNTY

Housing Type	1982	1983	1984	1985	1986	1987
Shute Creek Alternative Impact						
Single Family	0	0	4	21	21	7
Mobile Home	0	0	7	24	27	9
Multi-Family	0	0	2	4	4	3
Other	0	0	1	3	4	0
Total	0	0	14	52	56	19

Housing Type	1988	1989	1990	1995	2000
Shute Creek Alternative Impact					
Single Family	8	8	11	6	6
Mobile Home	9	10	13	7	7
Multi-Family	3	3	4	1	1
Other	0	0	0	0	0
Total	20	21	28	14	14

Source: Western Research Corporation; Laramie, Wyoming (1982).

represents a 133 percent increase in housing demand above the baseline. By 1990, however, the net increase (28 units) due to the Shute Creek alternative is over three times the net increase expected under the proposed action. The net increase of 28 units is 62 percent of the housing demand without the project.

4.5.3 PROJECTED EFFECTS ON FISCAL ANALYSIS AND PUBLIC SERVICES

Lincoln County

The Shute Creek alternative does not significantly alter the impacts on Lincoln County and its municipalities when compared to the proposed action (see discussion in Section 4.2.3). The revenue and expenditure analysis for the district indicates sufficient revenue surpluses under existing school district financing laws to adequately handle the projected increases in student enrollments.

Sublette County

A complete analysis of the impact of the Riley Ridge Shute Creek alternative on services and facilities in Sublette County and Sublette County School District #9 was conducted. This analysis demonstrated that impacts on the services and facilities of those entities would be only slightly less than impacts from the Riley Ridge proposed action. The discussion of impacts attendant to the Shute Creek alternative would be substantially the same as that for the proposed action. To avoid duplication, no further discussion of impacts related to the Shute Creek alternative will be presented; the reader is referred to the discussion of the proposed action.

Sweetwater County

Town of Granger

Significant impacts of the Shute Creek alternative to the Town of Granger's needs for the Police Department, Fire Department, and solid waste disposal do not differ from those described under the proposed action in Section 4.2.3.

Deficits experienced under the Shute Creek alternative will be higher due to the larger projected population increases. The total revenue surpluses and deficits, 1982 to 1990, under the Shute Creek alternative is about a negative $253,000.

4.5.4 HUMAN SERVICES

The impact of the Shute Creek alternative on human services within Lincoln, Sublette, and Sweetwater counties is substantially the same as the proposed action. The reader is referred to Section 4.2.4 for the discussion of human services impacts.

4.5.5 DESCRIPTION OF POSSIBLE SOCIAL CONDITIONS

No projections of the effects of the Shute Creek alternative on quality of

life and social well-being (as represented by such indicators as divorce rates, infant mortality rates, mental health rates, and crimes rates) should be made without first engaging in the "social effects" interviewing process in the area of site influence (see write-up in Section 4.2.5).

It can be predicted, however, that per capita income will most likely increase and unemployment will decrease (or remain low in the case of Sublette County) under the Shute Creek alternative. This will especially be the case in Lincoln County where both of these indicators lag behind Sublette County.

4.6 NORTHERN ALTERNATIVE

4.6.1 GENERAL ECONOMIC CONDITIONS AND POPULATION CHARACTERISTICS IN SOUTHWESTERN WYOMING UNDER THE NORTHERN ALTERNATIVE

Employment

Tables 4.6.1-1, 4.6.1-2, and 4.6.1-3 present the net employment opportunity effects associated with the project development for the three counties under the Northern alternative. As with the other project alternatives, the major impacts are expected to occur in the mining, construction, manufacturing, and transportation, communications, and public utilities sectors. Under the Northern alternative most of the expected regional impacts from the Riley Ridge development after 1985 are located in Sublette County. Prior to 1985 most of the regional impacts are located in Lincoln County. This is clearly demonstrated by the net employment opportunity projections. During the peak year (1986), in terms of total net employment opportunities in Sublette County, the Northern alternative results in an additional 2,115 jobs, 84 percent more than expected under the baseline (Table 3.2.1-2). In 1990 the total employment opportunities are increased by over 47 percent compared to the baseline for Sublette County. Compared with the proposed action (Table 4.2.1-2), net employment opportunities in Sublette County will increase by 25 percent in 1985 and 56 percent in 1986. This alternative is expected to maintain employment opportunities at a level from 6 to 9 percent above the proposed action.

The Northern alternative has its peak net employment opportunity change in Lincoln County in 1985 (2,139 jobs). These jobs represent a 31 percent increase over the employment opportunity in the baseline. However, this net peak (1985) change is only 75 percent of the net peak (1986) increase in jobs under the proposed action. By 1990 the Northern alternative will result in 11 percent fewer employment opportunities in Lincoln County than will the proposed action.

For Sweetwater County under the Northern alternative, the direction and rates of change in total jobs from 1982 to 1990 in the mining sector also remains virtually unchanged in comparison to the baseline. During this period, the total number of jobs in the mining sector in Lincoln and Sublette counties increase by approximately 21 percent and 27 percent, respectively, or the same as under the proposed action. This growth can also be compared to a positive 14 percent and negative 33 percent change projected under the baseline.

TABLE 4.6.1-1

PROJECTED ANNUAL EMPLOYMENT OPPORTUNITIES IN LINCOLN COUNTY ASSOCIATED WITH THE DEVELOPMENT OF THE RILEY RIDGE PROJECT UNDER THE NORTHERN ALTERNATIVE FOR THE PERIOD 1982 TO 2000

Category	1982	1983	1984	1985	1986	1987
Northern Alternative Impact						
Direct Employment						
Mining	0	12	73	134	143	146
Construction	0	8	237	929	815	234
Manufacturing	0	0	0	13	62	88
Transportation, Communications, and Public Utilities	0	0	1	9	43	46
Total Direct Employment	0	20	311	1,085	1,063	514
Total Indirect Employment	0	19	303	1,054	1,014	471
Total Net Employment Opportunities	0	39	614	2,139	2,077	985

TABLE 4.6.1-1 (CONTINUED)

Category	1988	1989	1990	1995	2000
Northern Alternative Impact					
Direct Employment					
Mining	148	150	98	93	93
Construction	208	306	146	0	0
Manufacturing	96	118	136	168	168
Transportation, Communications, and Public Utilities	47	49	52	57	57
Total Direct Employment	499	623	432	318	318
Total Indirect Employment	454	569	378	259	259
Total Net Employment Opportunities	953	1,192	810	577	577

Source: Western Research Corporation; Laramie, Wyoming, 1982.

TABLE 4.6.1-2

PROJECTED ANNUAL EMPLOYMENT OPPORTUNITIES IN SUBLETTE COUNTY ASSOCIATED WITH THE DEVELOPMENT OF THE RILEY RIDGE PROJECT UNDER THE NORTHERN ALTERNATIVE FOR THE PERIOD 1982 TO 2000

Category	1982	1983	1984	1985	1986	1987
Northern Alternative Impact						
Direct Employment						
Mining	0	23	155	274	292	298
Construction	0	17	435	1,204	1,161	458
Manufacturing	0	0	0	41	189	271
Transportation, Communications, and Public Utilities	0	0	3	8	35	44
Total Direct Employment	0	40	593	1,527	1,677	1,071
Total Indirect Employment	0	11	159	408	438	268
Total Net Employment Opportunities	0	51	752	1,935	2,115	1,339

TABLE 4.6.1-2 (CONTINUED)

Category	1988	1989	1990	1995	2000
Northern Alternative Impact					
Direct Employment					
Mining	301	307	204	182	181
Construction	403	436	285	0	0
Manufacturing	295	360	417	516	516
Transportation, Communications, and Public Utilities	47	48	50	50	51
Total Direct Employment	1,046	1,151	956	748	748
Total Indirect Employment	260	284	228	166	166
Total Net Employment Opportunities	1,036	1,435	1,184	914	914

Source: Western Research Corporation; Laramie, Wyoming, 1982.

TABLE 4.6.1-3

PROJECTED ANNUAL EMPLOYMENT OPPORTUNITIES IN SWEETWATER COUNTY ASSOCIATED WITH THE DEVELOPMENT OF THE RILEY RIDGE PROJECT UNDER THE NORTHERN ALTERNATIVE FOR THE PERIOD 1982 TO 2000

Category	1982	1983	1984	1985	1986	1987
Northern Alternative Impact						
Direct Employment						
Mining	0	3	18	35	38	38
Construction	0	3	67	278	241	66
Manufacturing	0	0	0	0	0	0
Transportation, Communications, and Public Utilities	0	0	0	0	1	1
Total Direct Employment	0	6	85	313	280	105
Total Indirect Employment	0	5	73	266	238	89
Total Net Employment Opportunities	0	11	158	579	518	194

TABLE 4.6.1-3 (CONTINUED)

Category	1988	1989	1990	1995	2000
Northern Alternative Impact					
Direct Employment					
Mining	38	39	25	26	26
Construction	59	90	41	0	0
Manufacturing	0	0	0	0	0
Transportation, Communications, and Public Utilities	1	1	2	2	2
Total Direct Employment	98	130	68	28	28
Total Indirect Employment	83	111	57	23	23
Total Net Employment Opportunities	181	241	125	51	51

Source: Western Research Corporation; Laramie, Wyoming, 1982.

The projected decreases in total jobs in the construction sector between 1982 and 1990 in Lincoln and Sweetwater counties under the baseline are greatly reduced under the Northern alternative with the construction sector in both counties returning to within 90 percent of the 1982 levels in 1990. In Sublette County total construction jobs are projected to increase by 92 percent between 1982 and 1990 under the Northern alternative; a 12 percent increase is projected for construction jobs with the baseline.

Under the Northern alternative over 16 percent more jobs will be generated than the additional manufacturing jobs projected in the proposed action for Sublette County in 1990. The increase projected for this sector under this alternative by 1990 is approximately 1,017 percent, much above the zero change expected in Sublette County with no development and up from the 873 percent in the proposed action. No significant change in manufacturing job development is expected in Sweetwater County under the Northern alternative from those changes projected under the baseline. The Northern alternative results in the changes in manufacturing jobs in Lincoln County, with an estimated 23 percent total increase between 1982 and 1990 compared to a projected 3 percent increase with the baseline.

The implementation of the Northern alternative results in no significant changes in projected employment opportunities in the transportation, communication, and public utilities (T.C. & P.U.) sector in Sweetwater County from those expected with the baseline. By 1990, the increases in employment opportunities in that sector in Sublette County are estimated at 36 percent, much above the constant level projected in the baseline. The number of jobs in the T.C. & P.U. sector for Lincoln County are projected to increase by approximately 15 percent between 1982 and 1990, compared to a projected increase of just over 5 percent for the baseline. Changes in employment opportunities in this sector are expected to be about the same in the Northern alternative and the proposed action.

Personal Earnings

The impact on total projected personal earnings in constant 1980 dollars under the Northern alternative are presented in Table 4.6.1-4 for Lincoln, Sublette, and Sweetwater counties from 1982 to 1990. The net economic impacts are the greatest in Sublette County with total constant dollar earnings increasing by 124 percent from 1982 to 1990 compared to a slight decline under the baseline. Total personal earnings are estimated to increase from $34.8 million in 1982 to $69.9 million in 1990, with a peak in personal earnings of approximately $104.1 million in 1986. This is nearly a 202 percent increase in projected earnings for that year over the baseline. The net impact in constant 1980 dollar earnings for 1986 is estimated at nearly $70 million.

Total personal earnings in Lincoln County are projected to increase by approximately 26 percent from 1982 to 1990 under the Northern alternative compared to a 4 percent increase in constant dollar earnings under the baseline. Under the Northern alternative, projected personal earnings increase from approximately $107.2 million in 1982 to $134.8 million in 1990. Total constant dollar earnings peak at approximately $164.8 million in 1986, resulting in a positive net impact of almost $59 million for that year alone.

TABLE 4.6.1-4

PROJECTED ANNUAL IMPACT ON PERSONAL EARNINGS IN THOUSANDS OF CONSTANT 1980 DOLLARS FOR LINCOLN, SUBLETTE, AND SWEETWATER COUNTIES UNDER THE NORTHERN ALTERNATIVE

	1982	1983	1984	1985	1986	1987
Northern Alternative Impact						
Lincoln County	0	1,190	18,929	60,362	58,634	28,253
Sublette County	0	1,747	25,653	64,964	69,621	43,155
Sweetwater County	0	345	4,877	17,719	17,111	6,707

	1988	1989	1990	1995	2000
Northern Alternative Impact					
Lincoln County	27,211	34,134	22,799	13,821	13,856
Sublette County	41,721	45,384	36,525	25,493	25,490
Sweetwater County	6,109	8,486	4,433	1,365	1,365

Source: Western Research Corporation; Laramie, Wyoming, 1982.

This is an increase of approximately 55 percent in personal earnings for Lincoln County in 1986 over the projected level under the baseline. Net increases in constant dollar personal earnings for Lincoln County should be over $22 million by the year 1990 and about $14 million in 1995 under this alternative.

Sweetwater County shows a projected increase from 1982 to 1990 in constant dollar earnings of 8.5 percent compared to a 7.5 percent increase under the baseline. Total personal earnings (in 1980 dollars) are projected to increase from approximately $471.7 million in 1982 to about $511.7 million in 1990. The peak net impact in personal earnings is estimated at approximately $17.7 million in 1985, an increase of approximately 4 percent over the projected personal earnings under the baseline. Almost 7 percent of the peak increase in total personal earnings in Sweetwater County under the Northern alternative is expected to occur in the Town of Granger.

Labor Force

Table 4.6.1-5 presents projected impacts on mean annual labor force, employment, unemployment, and unemployment rates for Lincoln, Sublette, and Sweetwater counties from 1982 to 1990 under the Northern alternative. The total civilian labor force in Lincoln County is expected to increase by approximately 13.5 percent between 1982 and 1990, compared to an estimated 2.4 percent increase under the baseline. The rate of unemployment is expected to decrease to about 4.8 percent during the development period (1984 to 1986), compared to an estimated 6.5 percent unemployment rate under the baseline.

The total labor force in Sublette County is projected to increase by nearly 51 percent between 1982 and 1990 under this alternative, compared to a slight decrease under the baseline. The level of unemployment is estimated at 2.2 percent during the construction phase, while under the baseline, unemployment is estimated at 3.3 percent during most of these years.

There is a slight increase in the growth in labor force and employment in Sweetwater County under the Northern alternative compared to the baseline. The total labor force is projected to increase by 11.5 percent from 1982 to 1990, compared to a 10.7 percent increase under the baseline. The primary difference between the baseline and the Northern alternative is a very slight increase in unemployment in the late 1980s as construction activities on the Riley Ridge Project are completed.

Population

Table 4.6.1-6 presents the net annual population impact for Lincoln, Sublette, and Sweetwater counties, respectively, under the Northern alternative. Under this alternative, the total Lincoln County population is projected to increase by approximately 19 percent from 1982 to 1990, which is slightly over the 7.5 percent growth expected under the baseline. A continuous growth in population is not observed over the eight year period, however. From 1982 to 1986 the projected county population increases by nearly 31 percent, peaking in 1986 at 18,358 people, (compared with 19,625 under the proposed action) and then

TABLE 4.6.1-5

PROJECTED IMPACT ON ANNUAL AVERAGE LABOR FORCE, EMPLOYMENT, UNEMPLOYMENT, AND UNEMPLOYMENT RATES FOR LINCOLN, SUBLETTE, AND SWEETWATER COUNTIES FOR 1982 TO 2000 UNDER THE NORTHERN ALTERNATIVE[1]

Category	1982	1983	1984	1985	1986	1987
Total Labor Force						
Lincoln	0	0	404	1,602	1,644	861
Sublette	0	24	708	1,884	2,035	1,282
Sweetwater	0	0	142	536	482	180
Total Employment						
Lincoln	0	30	467	1,627	1,584	756
Sublette	0	48	716	1,843	2,015	1,278
Sweetwater	0	10	141	521	465	175
Total Unemployment						
Lincoln	0	-30	-63	-25	60	105
Sublette	0	-24	- 8	41	20	4
Sweetwater	0	-12	1	15	17	5
Annual Average Unemployment Rate - %						
Lincoln	0.0	-0.5	-1.4	-1.7	-0.6	0.8
Sublette	0.0	-1.1	-1.1	0.0	-1.1	-1.1
Sweetwater	0.0	0.0	0.0	0.0	0.0	0.0

TABLE 4.6.1-5 (CONTINUED)

Category	1988	1989	1990	1995	2000
Total Labor Force					
Lincoln	788	849	669	480	482
Sublette	1,289	1,387	1,180	905	905
Sweetwater	183	186	189	52	48
Total Employment					
Lincoln	732	916	627	451	451
Sublette	1,247	1,370	1,132	876	876
Sweetwater	163	217	112	46	46
Total Unemployment					
Lincoln	56	-67	42	29	31
Sublette	42	17	48	29	29
Sweetwater	20	-31	77	6	2
Annual Average Unemployment Rate - %					
Lincoln	0.1	-1.7	0.0	0.0	0.0
Sublette	0.0	-0.8	0.4	0.0	0.0
Sweetwater	0.1	-0.1	0.3	0.0	0.0

Source: Western Research Corporation; Laramie, Wyoming, 1982.

[1]These figures are calculated relative to the baseline. Therefore, negative impacts on unemployment and the unemployment rate are indicative of reductions in those factors.

TABLE 4.6.1-6

NORTHERN ALTERNATIVE POPULATION IMPACT WITHIN THE RILEY RIDGE STUDY AREA

LOCATION	1982	1983	1984	1985	1986	1987
LINCOLN COUNTY	0	0	990	3922	4025	2109
AFTON TOWN	0	0	5	18	19	11
THAYNE TOWN	0	0	2	7	7	5
DIAMONDVILLE TOWN	0	0	104	643	600	220
KEMMERER TOWN	0	0	223	1220	1163	472
LA BARGE TOWN	0	0	513	1488	1670	1098
COKEVILLE TOWN	0	0	14	52	55	31
RURAL	0	0	128	494	510	273
FRONTIER AREA	0	0	27	107	110	57
OPAL AREA	0	0	18	73	75	39
SUBLETTE COUNTY	0	50	1504	4009	4328	2727
BIG PINEY TOWN	0	13	396	1053	1133	718
MARBLETON TOWN	0	12	364	970	1043	661
PINEDALE TOWN	0	2	72	195	209	130
RURAL	0	22	671	1791	1933	1217
CALPET AREA	0	1	18	44	46	32
DANIEL AREA	0	0	10	27	29	18
CONSTRUCTION CAMP	0	0	7	102	165	22
SWEETWATER COUNTY	0	0	285	1072	964	361
GRANGER TOWN	0	0	17	73	63	21
GREEN RIVER CITY	0	0	109	416	373	139
ROCK SPRINGS CITY	0	0	98	360	326	124
SOUTH SUPERIOR TOWN	0	0	8	28	26	10
WAMSUTTER TOWN	0	0	4	14	13	5
RURAL	0	0	49	131	163	62

(CONTINUED ON NEXT PAGE)

TABLE 4.6.1-6

NORTHERN ALTERNATIVE POPULATION IMPACT WITHIN THE RILEY RIDGE STUDY AREA (CONTINUED)

LOCATION	1988	1989	1990	1995	2000
LINCOLN COUNTY	1929	2077	1639	1176	1181
AFTON TOWN	10	10	9	6	6
THAYNE TOWN	4	4	4	2	2
DIAMONDVILLE TOWN	203	278	176	134	134
KEMMERER TOWN	435	554	374	279	281
LA BARGE TOWN	999	936	841	586	588
COKEVILLE TOWN	28	29	24	17	17
RURAL	249	265	212	151	152
FRONTIER AREA	52	56	44	32	32
OPAL AREA	36	38	30	22	22
SUBLETTE COUNTY	2742	2949	2511	1926	1926
BIG PINEY TOWN	722	776	661	507	507
MARBLETON TOWN	665	714	609	467	467
PINEDALE TOWN	131	142	120	92	92
RURAL	1224	1317	1121	860	860
CALPET AREA	33	35	30	23	23
DANIEL AREA	18	20	17	13	13
CONSTRUCTION CAMP	0	0	0	0	0
SWEETWATER COUNTY	367	373	378	104	95
GRANGER TOWN	22	24	22	6	6
GREEN RIVER CITY	141	144	145	40	37
ROCK SPRINGS CITY	126	127	130	36	33
SOUTH SUPERIOR TOWN	10	10	11	3	3
WAMSUTTER TOWN	5	5	6	2	1
RURAL	63	63	65	18	16

SOURCE: WESTERN RESEARCH CORPORATION; LARAMIE, WYOMING (1982)

decreasing to 16,606 in 1987, changing slightly in the next years to total 16,664 in 1990.

The major changes in the population distributions within Lincoln County from those observed in the projected population under the baseline occurs in the town of LaBarge. Under the baseline LaBarge accounts for approximately 2.5 percent of the projected county population, compared to an 11 percent share in 1986 under this alternative. This is an increase of approximately 472 percent in the projected population (2,024) for the town of LaBarge over the projected population (354) under the baseline in that year. The total population increase for this town from 1982 to 1990 is estimated at approximately 251 percent.

The projected population for Sublette County exhibits an increase of nearly 53 percent from 1982 to 1990 under this alternative, compared to the almost zero rate of change expected under the baseline. The total net population increase in the peak year (1986) is estimated at 4,328 people, (compared with a peak of 3,197 in 1985 under the proposed action) which is an increase of approximately 89 percent in the total county population for that same year over the estimated population under the baseline. The growth in the projected population in Sublette County is not a continuous one, but, like Lincoln County, exhibits an increase from 1982 to 1986 and then fluctuates from 1985 to 1990. Total county population is projected to increase by about 92 percent from 1982 to 1986, and then decrease by approximately 21 percent by 1990.

The towns of Big Piney and Marbleton experience the greatest degree of impact in terms of total population growth, increasing in population from 1982 to 1990 by approximately 119 percent and 108 percent, respectively. This results in a change in the relative size of these towns from about 12 percent of the total county population in each town under the baseline to about 17 percent of the total population for each town under the Northern alternative. Pinedale's population is projected to be 18 percent above the baseline in 1986 compared to 14 percent above in the proposed action. By 1990, Pinedale is expected to grow 8 percent above the baseline under the Northern alternative.

Expected population impacts for Sweetwater County remain small under the Northern alternative, with total county population growth by 1990 projected at approximately 11.6 percent, compared to an estimated 10.7 percent increase under the baseline. The major impact in net population growth under this alternative is also expected to occur in the Town of Granger, where the total population is projected to increase by approximately 22 percent from 1982 to 1990, compared to the 10.3 percent increase projected under the baseline. The total net population impact for Granger is estimated at 73 people in 1985 (the peak year), this being a 39 percent increase in population over the baseline estimate for that year. No significant changes are expected to occur in the distribution and relative sizes of the populations in Sweetwater County under the Northern alternative compared to the baseline.

Population projections were also made to the year 2000 for the Northern alternative. These results indicate a decreasing level of net impacts after 1990 in all three counties. This downward trend stabilizes by 1995, with net impacts in population remaining very constant to the year 2000. These results

indicate that any further attention to the impact analysis after the year 1990 is unnecessary. The estimated net impacts under this alternative peak during the period of 1985 to 1986, and any necessary facilities or programs initiated during this time to meet these new demands should be adequate to the year 2000.

As was noted in Section 3.2.1, the age and sex characteristics of the population in each of the three counties is expected to remain essentially unchanged from 1980 to 1990 under the baseline. With the Northern alternative, the characteristics of the population in Sweetwater County will not change given the limited impacts expected there. In Lincoln and Sublette counties the changes may be more noticeable but are not expected to be significant (Table 4.6.1-7). In the peak construction years, the relative concentration of individuals in the 20 to 34 year old group (25 percent) will increase by approximately 2 percent to 27 percent of the population. The accompanying percentage decreases which compensates for this group's increase are distributed throughout the younger and older age groups.

4.6.2 HOUSING

The housing demand projections associated with the Northern alternative for the Riley Ridge Project are presented in Tables 4.6.2-1 through 4.6.2-8. The projection methods and the consideration of the Northwest Pipeline man camp in Sublette County are the same as for its location in Lincoln County as described in Section 4.2.2 above.

Lincoln County

The Northern alternative will result in a 1986 peak housing demand that is 27 percent above the baseline for Lincoln County. This is a net increase of 1,298 units demanded (Table 4.6.2-1) above the baseline compared with 2,270 units of increased demand (Table 4.2.2-1) for the proposed action. This represents about a 43 percent decrease in the peak housing demand below the proposed action. The 1990 net housing demand (528 units) for the Northern alternative is about 11 percent lower than the 1990 net demand for the proposed action (593 units). The analysis of the Northern alternative indicates a reduction in the temporary housing requirement under the proposed action in Lincoln County. However, the decline in total housing demand from the peak in 1986 (6,196 units) to 1990 (5,702 units) demand is not as drastic in this alternative as in the proposed action (1986: 7,168 units, 1990: 5,767 units) thereby potentially providing for a more stable growth of the county housing market.

Kemmerer (Table 4.6.2-2) and Diamondville (Table 4.6.2-3) are projected to follow the county with reduced housing demand below the proposed action in this alternative. These towns are projected to have about a 57 percent decrease in net impact below that of 1986 in the proposed action. In 1990, Diamondville and Kemmerer are projected to have a net decrease of about one-third that of the proposed action. LaBarge (Table 4.6.2-4), on the other hand, is projected to have a 1986 peak net impact (539 units) which is 15 percent higher than the 1985 peak net impact (468 units) in the proposed

TABLE 4.6.1-7

PROJECTED NORTHERN ALTERNATIVE IMPACT ON POPULATION DEMOGRAPHICS

CATEGORY	1982	1983	1984	1985	1986	1987
LINCOLN COUNTY						
0 TO 4 YEARS	0	0	119	471	483	253
5 TO 19 YEARS	0	0	260	1031	1059	555
20 TO 34 YEARS	0	0	302	1196	1228	643
35 TO 54 YEARS	0	0	187	741	761	399
55 YEARS AND OLDER	0	0	122	482	495	259
TOTAL POPULATION IMPACT	0	0	990	3922	4025	2109
SUBLETTE COUNTY						
0 TO 4 YEARS	0	6	180	481	519	327
5 TO 19 YEARS	0	13	396	1054	1138	717
20 TO 34 YEARS	0	15	459	1223	1320	832
35 TO 54 YEARS	0	9	284	758	818	515
55 YEARS AND OLDER	0	6	185	493	532	335
TOTAL POPULATION IMPACT	0	50	1504	4009	4328	2727

(CONTINUED ON NEXT PAGE)

TABLE 4.6.1-7

PROJECTED NORTHERN ALTERNATIVE IMPACT ON POPULATION DEMOGRAPHICS (CONTINUED)

CATEGORY	1988	1989	1990	1995	2000
LINCOLN COUNTY					
0 TO 4 YEARS	231	249	197	141	142
5 TO 19 YEARS	507	546	431	309	311
20 TO 34 YEARS	588	633	500	359	360
35 TO 54 YEARS	365	393	310	222	223
55 YEARS AND OLDER	237	255	202	145	145
TOTAL POPULATION IMPACT	1929	2077	1639	1176	1181
SUBLETTE COUNTY					
0 TO 4 YEARS	329	354	301	231	231
5 TO 19 YEARS	721	776	660	507	507
20 TO 34 YEARS	836	899	766	587	587
35 TO 54 YEARS	518	557	475	364	364
55 YEARS AND OLDER	337	363	309	237	237
TOTAL POPULATION IMPACT	2742	2949	2511	1926	1926

SOURCE: WESTERN RESEARCH CORPORATION; LARAMIE, WYOMING (1982)

TABLE 4.6.2-1

PROJECTED IMPACT OF THE NORTHERN ALTERNATIVE ON HOUSING DEMAND IN LINCOLN COUNTY

Housing Type	1982	1983	1984	1985	1986	1987
Northern Alternative Impact						
Single Family	0	0	161	620	665	388
Mobile Home	0	0	102	419	410	186
Multi-Family	0	0	28	111	112	57
Other	0	0	28	115	111	49
Total	0	0	319	1,265	1,298	680

Housing Type	1988	1989	1990	1995	2000
Northern Alternative Impact					
Single Family	361	383	332	281	282
Mobile Home	166	183	122	57	58
Multi-Family	52	57	43	29	29
Other	43	47	31	12	12
Total	622	670	528	379	381

Source: Western Research Corporation; Laramie, Wyoming (1982).

TABLE 4.6.2-2

PROJECTED IMPACT OF THE NORTHERN ALTERNATIVE ON HOUSING DEMAND IN THE TOWN OF KEMMERER

Housing Type	1982	1983	1984	1985	1986	1987
Northern Alternative Impact						
Single Family	0	0	45	248	236	96
Mobile Home	0	0	12	65	62	25
Multi-Family	0	0	9	47	45	18
Other	0	0	6	33	32	13
Total	0	0	72	393	375	152

Housing Type	1988	1989	1990	1995	2000
Northern Alternative Impact					
Single Family	88	112	75	57	58
Mobile Home	23	29	20	15	15
Multi-Family	17	22	15	11	11
Other	12	15	10	7	7
Total	140	178	120	90	91

Source: Western Research Corporation; Laramie, Wyoming (1982).

TABLE 4.6.2-3

PROJECTED IMPACT OF THE NORTHERN ALTERNATIVE ON HOUSING DEMAND IN THE TOWN OF DIAMONDVILLE

Housing Type	1982	1983	1984	1985	1986	1987
Northern Alternative Impact						
Single Family	0	0	15	93	86	32
Mobile Home	0	0	17	103	96	36
Multi-Family	0	0	2	10	9	3
Other	0	0	0	1	1	0
Total	0	0	34	207	192	71

Housing Type	1988	1989	1990	1995	2000
Northern Alternative Impact					
Single Family	29	40	26	19	19
Mobile Home	33	45	28	22	22
Multi-Family	3	4	3	2	2
Other	0	0	0	0	0
Total	65	89	57	43	43

Source: Western Research Corporation; Laramie, Wyoming (1982).

TABLE 4.6.2-4

PROJECTED IMPACT OF THE NORTHERN ALTERNATIVE ON HOUSING DEMAND IN THE TOWN OF LABARGE

Housing Type	1982	1983	1984	1985	1986	1987
Northern Alternative Impact						
Single Family	0	0	92	268	301	198
Mobile Home	0	0	62	179	201	132
Multi-Family	0	0	11	33	37	24
Other	0	0	0	0	0	0
Total	0	0	165	480	539	354

Housing Type	1988	1989	1990	1995	2000
Northern Alternative Impact					
Single Family	180	169	151	106	106
Mobile Home	120	112	102	70	71
Multi-Family	22	21	18	13	13
Other	0	0	0	0	0
Total	322	302	271	189	190

Source: Western Research Corporation; Laramie, Wyoming (1982).

action. However, by 1990 the net impact difference is a reduction of 16 percent below that projected for the proposed action.

Sublette County

The Northern alternative results in a peak housing demand of 2,208 units in 1986 (Table 4.6.2-5), which is 16 percent higher than the 1,907 units of demand projected without the project. This 1986 peak demand is about 2 percent lower than the 1985 peak impact (Table 4.2.2-5) projected for the proposed action. In 1990, the Northern alternative is expected to result in a net increase of 992 units in Sublette County compared with a county net increase of 928 units under the proposed action. During the period 1995 to 2000, the Northern alternative will create a net demand for about 760 units which can be compared with about 700 units under the proposed action.

Total housing demand in Big Piney (Table 4.6.2-6) and Marbleton (Table 4.6.2-7) is expected to increase 89 percent above the baseline projections in 1986; this represents a 16 percent increase in Big Piney and a 35 percent increase in Marbleton over the expected demand for the proposed action peak year, 1985. While the 1990 housing demand is projected to be over 70 percent above the baseline for both towns, this alternative results in about the same housing demand as that expected from 1990 through 2000 in the proposed action. Pinedale is projected to need 18 percent more housing units in 1986 under this alternative than in the baseline; by 2000, Pinedale's housing demand is expected to be 8 percent above the baseline (Table 4.6.2-8).

Town of Granger, Sweetwater County

The peak housing demand associated with the Northern alternative in Granger drops from the 46 units in 1986 under the proposed action (Table 4.2.2-9) to 28 units in the peak year, 1986 (Table 4.6.2-9). However, this alternative also represents a 37 percent increase in housing demand above the baseline. By 1990, however, the net increase (9 units) due to the Northern alternative is almost the same as the net increase expected under the proposed action. The net increase of 9 units is 11 percent of the housing demand without the project.

4.6.3 PROJECTED EFFECTS ON FISCAL ANALYSIS AND PUBLIC SERVICES

Lincoln County

The Northern alternative does not significantly alter the impacts on Lincoln County and its municipalities when compared to the proposed action (see discussion in Section 4.2.3). The revenue and expenditure analysis for the district indicates sufficient revenue surpluses under existing school district financing laws to adequately handle the projected increases in student enrollments.

Sublette County

A complete analysis of the impact of the Riley Ridge Northern alternative on

TABLE 4.6.2-5

PROJECTED IMPACT OF THE NORTHERN ALTERNATIVE ON HOUSING DEMAND IN SUBLETTE COUNTY

Housing Type	1982	1983	1984	1985	1986	1987
Northern Alternative Impact						
Single Family	0	8	207	469	517	458
Mobile Home	0	5	243	597	560	363
Multi-Family	0	3	67	157	162	129
Other	0	8	98	670	969	192
Total	0	24	615	1,893	2,208	1,142

Housing Type	1988	1989	1990	1995	2000
Northern Alternative Impact					
Single Family	494	542	518	490	490
Mobile Home	370	390	289	149	149
Multi-Family	135	146	129	108	108
Other	84	87	56	14	14
Total	1,083	1,165	992	761	761

Source: Western Research Corporation; Laramie, Wyoming (1982).

TABLE 4.6.2-6

PROJECTED IMPACT OF THE NORTHERN ALTERNATIVE ON HOUSING DEMAND IN THE TOWN OF BIG PINEY

Housing Type	1982	1983	1984	1985	1986	1987
Northern Alternative Impact						
Single Family	0	3	99	265	286	180
Mobile Home	0	1	41	108	117	74
Multi-Family	0	1	15	41	44	28
Other	0	0	1	2	2	1
Total	0	5	156	416	449	283

Housing Type	1988	1989	1990	1995	2000
Northern Alternative Impact					
Single Family	182	195	166	127	127
Mobile Home	74	80	68	52	52
Multi-Family	28	30	26	20	20
Other	1	1	1	1	1
Total	285	306	261	200	200

Source: Western Research Corporation; Laramie, Wyoming (1982).

TABLE 4.6.2-7

PROJECTED IMPACT OF THE NORTHERN ALTERNATIVE ON HOUSING DEMAND IN THE TOWN OF MARBLETON

Housing Type	1982	1983	1984	1985	1986	1987
Northern Alternative Impact						
Single Family	0	2	70	186	199	127
Mobile Home	0	2	67	177	192	121
Multi-Family	0	1	7	20	22	13
Other	0	0	0	0	0	0
Total	0	5	144	383	413	261

Housing Type	1988	1989	1990	1995	2000
Northern Alternative Impact					
Single Family	128	137	117	90	90
Mobile Home	122	131	112	86	86
Multi-Family	13	14	12	9	9
Other	0	0	0	0	0
Total	263	282	241	185	185

Source: Western Research Corporation; Laramie, Wyoming (1982).

TABLE 4.6.2-8

PROJECTED IMPACT OF THE NORTHERN ALTERNATIVE ON HOUSING DEMAND IN THE TOWN OF PINEDALE

Housing Type	1982	1983	1984	1985	1986	1987
Northern Alternative Impact						
Single Family	0	0	10	23	25	22
Mobile Home	0	0	12	29	27	17
Multi-Family	0	0	3	8	8	6
Other	0	0	3	15	22	6
Total	0	0	28	75	82	51

Housing Type	1988	1989	1990	1995	2000
Northern Alternative Impact					
Single Family	24	26	25	23	23
Mobile Home	18	19	14	7	7
Multi-Family	6	7	6	5	5
Other	5	5	5	2	2
Total	53	57	50	37	37

Source: Western Research Corporation; Laramie, Wyoming (1982).

TABLE 4.6.2-9

PROJECTED IMPACT OF THE NORTHERN ALTERNATIVE ON HOUSING DEMAND IN THE TOWN OF GRANGER, SWEETWATER COUNTY

Housing Type	1982	1983	1984	1985	1986	1987
Northern Alternative Impact						
Single Family	0	0	4	16	14	5
Mobile Home	0	0	3	11	9	2
Multi-Family	0	0	0	1	1	1
Other	0	0	0	0	0	0
Total	0	0	7	28	24	8

Housing Type	1988	1989	1990	1995	2000
Northern Alternative Impact					
Single Family	5	5	5	1	1
Mobile Home	3	3	3	1	1
Multi-Family	1	1	1	0	0
Other	0	0	0	0	0
Total	9	9	9	2	2

Source: Western Research Corporation; Laramie, Wyoming (1982).

services and facilities in Sublette County and Sublette County School District #9 was conducted. This analysis demonstrated that impacts on the services and facilities of those entities would be only slightly more than impacts from the Riley Ridge proposed action. The discussion of impacts attendant to the Northern alternative would be substantially the same but in a larger magnitude as that for the proposed action. To avoid duplication, no further discussion of impacts related to the Northern alternative will be presented; the reader is referred to the discussion of the proposed action.

Sweetwater County

Town of Granger

Significant impacts of the Northern alternative to the Town of Granger's needs for the Police Department, Fire Department, and solid waste disposal do not differ from those described under the proposed action in Section 4.2.3.

Fiscal impacts experienced under the Northern alternative will be lower than in the proposed action due to the smaller projected population increases.

4.6.4 HUMAN SERVICES

Human service requirements will decrease slightly in the peak years in Lincoln County and increase slightly during this period in Sublette County relative to the proposed action. However, by 1990, the requirements for the Northern alternative are substantially the same as for the proposed action. The reader is referred to Section 4.2.4 for a discussion of these needs.

4.6.5 DESCRIPTION OF POSSIBLE SOCIAL CONDITIONS

No projections of the effects of the Northern alternative on quality of life and social well-being (as represented by such indicators as divorce rates, infant mortality rates, mental health rates, and crimes rates) should be made without first engaging in the "social effects" interviewing process in the area of site influence (see write-up in Section 4.2.5).

It can be predicted, however, that per capita income will most likely increase and unemployment will decrease (or remain low in the case of Sublette County) under the Northern alternative. This will especially be the case in Lincoln County where both of these indicators lag behind Sublette County.

4.7 NO ACTION ALTERNATIVE

The net socioeconomic effect of development of the Riley Ridge project has been addressed above in Sections 4.2 through 4.6.

Failure to proceed with development of the Riley Ridge project would create some changes in the socioeconomic factors discussed previously. However, these socioeconomic considerations would involve minimal differences in the discussions provided for Lincoln County and Sublette County in Chapter 3 and for Sweetwater County in Section 4.2.

The delineation of baseline socioeconomic conditions in Lincoln and Sublette counties would also be relevant to the no action alternative. This is because the Riley Ridge project is expected to constitute the majority of the development impact currently anticipated in those two counties (see Section 4.2.6). Therefore, a discussion of the socioeconomic changes under the no action alternative would parallel the discussion of the socioeconomic baseline (see Chapter 3).

In Sweetwater County the socioeconomic effects of development of the Riley Ridge project are expected to be relatively slight and transitory when compared to the effects of other anticipated developments. Therefore, because the Riley Ridge project is not expected to constitute a large proportion of future socioeconomic impacts in the county, adoption of the no action alternative would not significantly change the socioeconomic conditions expected with the development of other interrelated projects (see Section 4.2.6).

4.8 UNAVOIDABLE ADVERSE IMPACTS

The unavoidable adverse socioeconomic impacts associated with development of the Riley Ridge Project to the extent there are any, are independent of the selection of alternatives. Impacts which may be unavoidable stem from the differential effects of the project on different components of the population.

Because the economic impacts of the project will affect different population groups in varying degrees, it is extremely difficult to accurately project such effects.

Some elderly individuals in the indigenous population of the area may suffer from price increases and additional competition for available housing and services. Likewise, some members of the agricultural and service sectors of the local economy may find it difficult to compete with the energy industry for skilled labor because of the variation of the wage levels.

Local businesses may find it difficult to hire and maintain employees given the increased competition for labor and the transient nature of many of the construction craftsmen. That is, even if a construction worker brings his family to the community, depending on the longevity of his work, other employed members of the family will leave the community when he does. This results in the additional problems of student turnover in the local schools.

The major unavoidable adverse socioeconomic impact involves the provision of housing, public services, and human services in an adequate and timely manner for a somewhat transitory population. While many of the new residents of the region will remain to become employees in the operation and maintenance of the facilities, the construction work force exceeds the ultimate operational work force by approximately 2,000 workers in the peak years of 1985 and 1986. Nonetheless, adequate provision of services for the transient population must be managed. Therefore, service capacities in many of the areas (such as water, sewer, etc.) will have to be developed to at least marginally supply the needs of the peak population and this can result in abundant and, sometimes expensive, excess capacity in the long term.

APPENDIX A
RILEY RIDGE PROJECT
SOCIOECONOMIC ASSESSMENT TECHNICAL DOCUMENTATION

WESTERN RESEARCH CORPORATION

Table of Contents

		Page
Introduction		A-1
Section I	Delineation of the Area of Site Influence	A-2
Section II	Western Research Corporation's Regional Economic Model	A-6
Section III	Housing Demand Modeling Procedure	A-19
Section IV	Public Facilities and Service Standards	A-23
Section V	Local Government Revenue and Expenditure Analysis	A-26
Section VI	Socioeconomic Glossary	A-30
Section VII	References	A-32

APPENDIX A

TECHNICAL DOCUMENTATION

INTRODUCTION

This appendix summarizes the technical procedures Western Research Corporation used in preparing the Riley Ridge Socioeconomic Assessment Technical Report. Section I describes the procedures used to define the area of site influence. WRC's Regional Economic Model is explained in Section II. The modeling process along with its three main components (the demographic, economic, and migration analyses) is described in detail. The methodology used to estimate housing supply and project the demand for dwellings is reviewed in Section III. The standards applied to public facility and service needs are discussed in Section IV. The procedures employed in projecting local government revenue and expenditures are discussed in Section V. Socioeconomic terms used throughout the technical report are defined in the Glossary in Section VI. References used for this report are presented in Section VII.

SECTION I: DELINEATION OF AREA OF SITE INFLUENCE

INTRODUCTION

Western Research Corporation has developed a regional approach to determining the area of site influence of western energy development projects. This approach combines the influence of the significant distances separating western towns and the spatial differentiation of counties with the effects of changing inter-regional trade flows and a changing social infrastructure under the proposed development project.

The procedure begins with a gravity model distribution of proposed project employees. This initial distribution is then adjusted for unquantifiable factors in the existing socioeconomic infrastructure if deemed appropriate by the analyst. The adjusted distribution becomes a parameter for WRC's Regional Economic Model. Through comparison of employment and population during both the historic period and future baseline projections with those for the development scenario, the magnitude of the effects of development for each county and jurisdiction within the region are identified.

METHODOLOGY

Projections of the initial distribution of prospective project employees into the general region are based upon the results of a gravity employment distribution model. The form of this model assumes that the probability of an employee from a development site residing in any given town is positively related to the town's mass or size and inversely related to its distance away from the site. Since the probability of residing in any one town also depends upon the size and distance away from other towns, the model becomes: the probability of residing in town x is equal to the attraction of town x divided by the total attraction of all towns within a specified commuting distance. The gravity model is expressed as:

$$P_x = \frac{(S_x/D^2_{xs})}{\sum_{x=1}^{n} (S_x/D^2_{xs})}$$

P_x = probability of a new worker residing in town x

S_x = population of town x

D^2_{xs} = the square of the distance town x is away from the development site expressed in minutes of travel time

n = the number of towns included within the boundary of the region being analyzed

S_x is used as a proxy variable for nonquantifiable amenities which come with population size such as community infrastructure, economic opportunity, and social and recreational opportunities which are urban in nature. The area of consideration is the County Census Division (CCD) rather than the town in order to incorporate the effects of subdivisions outside of town limits. D^2_x provides a proxy for the impediment to residential location selection represented by travel time over varying quality and conditions of the highway network in the region.

The important characteristic of this model is that it is a closed form of the gravity model since it applies to specified towns within a specified boundary. The regional highway network plays a large role in determining this boundary since, in Wyoming, the private automobile is the only readily available means of transportation. The number and quality of the roads leading from the development site to individual towns and the travel time between the two points are, therefore, the primary determinants of the gravity model boundary. The boundary established includes those locations close enough to the development site that employees living in the area may commute to work on a daily basis. The size of this group and the distance they are willing to travel were determined through monitoring studies conducted by WRC at the Laramie River Electric Power Station near Wheatland, Wyoming. About 24 percent of this project's construction and operating work force were categorized as daily commuters (Laramie River Station Monitoring Reports, 1975-1982). Since 99 percent of these employees resided within 110 miles or 2-hour commuting distance of the site, a similar boundary was, therefore, assumed to be appropriate for the construction period. In 12 case studies reviewed by the Electrical Power Research Institute (EPRI, 1982) construction workers commuting times ranged from 1.25 to 2.00 hours with the average being 1.42. Therefore, with the Wyoming experience in this group of projects, the Laramie River Station 2 hour boundary was assumed to be appropriate for this project. The boundary for daily commuters during the operational phase of the facilities was assumed to be a maximum of one hour commuting distance based upon the relative locations of towns within the study area. The EPRI studies also showed a commuting range of from 0.5 to 1.00 hour or an average of 0.84 hours for operating employees.

This use of the gravity model is to analyze potential distributions of the project work force over an initial area of site influence which includes not only the counties in which the project is located but also the appropriate contiguous Wyoming counties. Potential mitigation actions such as man camps or other housing developments are not considered in this initial analysis so the maximum population effects of the project can be compared with the historical growth experience in each appropriate county. Addition of actions such as development of a man camp in the process of defining the area of site influence has the effect of minimizing the area. Two of the typical problems in socioeconomic impact assessments have been (1) underestimating the size of the impact area and (2) comparisons of actual settlement patterns with results from gravity models indicates that these models tend to overestimate impacts on small communities near the site and underestimate impact on larger, more distant communities. Including mitigation activities such as a man camp at this point in the analysis bias the results even more along these lines.

A new employee's decision about where to live affects the area of site influence through its effect on regional trade flows. Since many residents travel outside of their community to purchase goods and services, the secondary impacts of development will be distributed in accordance with regional trading patterns, which may or may not change with development of the area. The historical trade patterns and the degree to which changes caused by expected development influence trade patterns further define the area of site influence.

The "secondary area" of influence includes those locations from which weekly commuters may be drawn and which also may provide secondary goods and services to people living in the primary area. Weekly commuters may choose to live in towns throughout the region which are generally on the fringes or outside the two-hour commuting time. The monitoring study of the Laramie River Station found this group to comprise about 50 percent of that work force. Since weekly commuters reside in or near the communities in the vicinity of the project site only during the week, they are considered as temporary residents for the purpose of WRC's impact analysis.

Communities outside of the area adjacent to a development project may grow by providing secondary goods and services. If these communities are outside the boundary established for the primary area, they are also linked with the primary area through income flows as new employees and industries make purchases outside their immediate locations. Regional trade centers may also experience secondary impact growth.

Once the initial distribution of new "basic" employees is determined through use of the gravity model and experienced judgment, "induced" employment within the overall region being analyzed for potential growth is projected using WRC's Regional Economic Model. This model relates inter-county flows to increases in personal income generated by the new employees in the basic sector. Essentially, the approach distributes secondary employment based upon the hierarchical trade patterns within the region under study.

This employment analysis is then used to determine the "primary area" of site influence based upon a comparison of each county's future baseline and development scenario average expected annual growth rate with those which occurred from 1970-80. If the county or individual municipality within the county has an expected employment growth rate outside of the range of the annual variation of the historical growth rate, the county or municipality is designated as being within the primary area of site influence. Those counties in the region which did not meet these criteria are considered as the secondary area of site influence along with major regional trade centers serving the region.

A second use of the gravity model technique is to distribute the project work force within the established area of site influence in such a manner as to include potential mitigation activities such as a man camp. Since the distance factor from a man camp, for example, to the site applied in the gravity model formulation may be effectively zero, if the development is adjacent to or on the project site, and a limited population at the camp is not considered an adequate proxy of community infrastructure, other economic

activity, and urban social or recreational opportunities, treating this type of development as another town is technically inappropriate. Therefore, a rural to urban weighting procedure within the County Census Division (CCD) is used to compensate for these considerations. A development such as a man camp is incorporated in the following manner.

The gravity model specification used for this second purpose is also formulated as described above. However, for distribution within the final area of site influence, the interpretation of the distribution of project-related direct and indirect population to rural and urban areas within a CCD becomes important. The rural to urban weighting procedure uses the 1980 town population to total CCD urban population ratio times the total CCD population along with the town's distance from each proposed project site to determine what portion of the project-related population would be in the urban center or in the rural area near the town.

In this procedure, the change in rural population due to the project is not identified to any specific location but its magnitude is influenced by the distance each urban center is from the project activity sites. Family status direct population and all indirect population are then assumed to locate within the current boundaries of or adjacent to incorporated towns. This assumption reflects the service, trade, housing supply, and governmental infrastructure presently available to support growth within the area. Further, a man camp is assumed to be comprised of single status employees, located in the rural area of the county on the plant site, and made up of facilities similar to other man camps currently operating in or planned for Wyoming. The average annual work force which may be housed in a man camp is required, as opposed to the use of a peak work force in order to be consistent with all other employment and population data. Either the 1980 Census ratio of non-family households in the camp's host county or the ratio of single status construction workers as determined by surveys such as the Construction Worker Profile (Mountain West, 1975) can be chosen to reflect the change in rural population which comes about by concentrating these particular non-family households in a man camp. Since the precise mix of family and non-family households which will be attracted by the project can vary, the appropriate assumption to support population forecasting is the one which generates the most significant potential impacts on the local socioeconomic infrastructure. Therefore, for the Riley Ridge Project, the 1980 Census mix of household types in a host county was used for the population analysis.

SECTION II: WESTERN RESEARCH CORPORATION'S REGIONAL ECONOMIC MODEL

INTRODUCTION

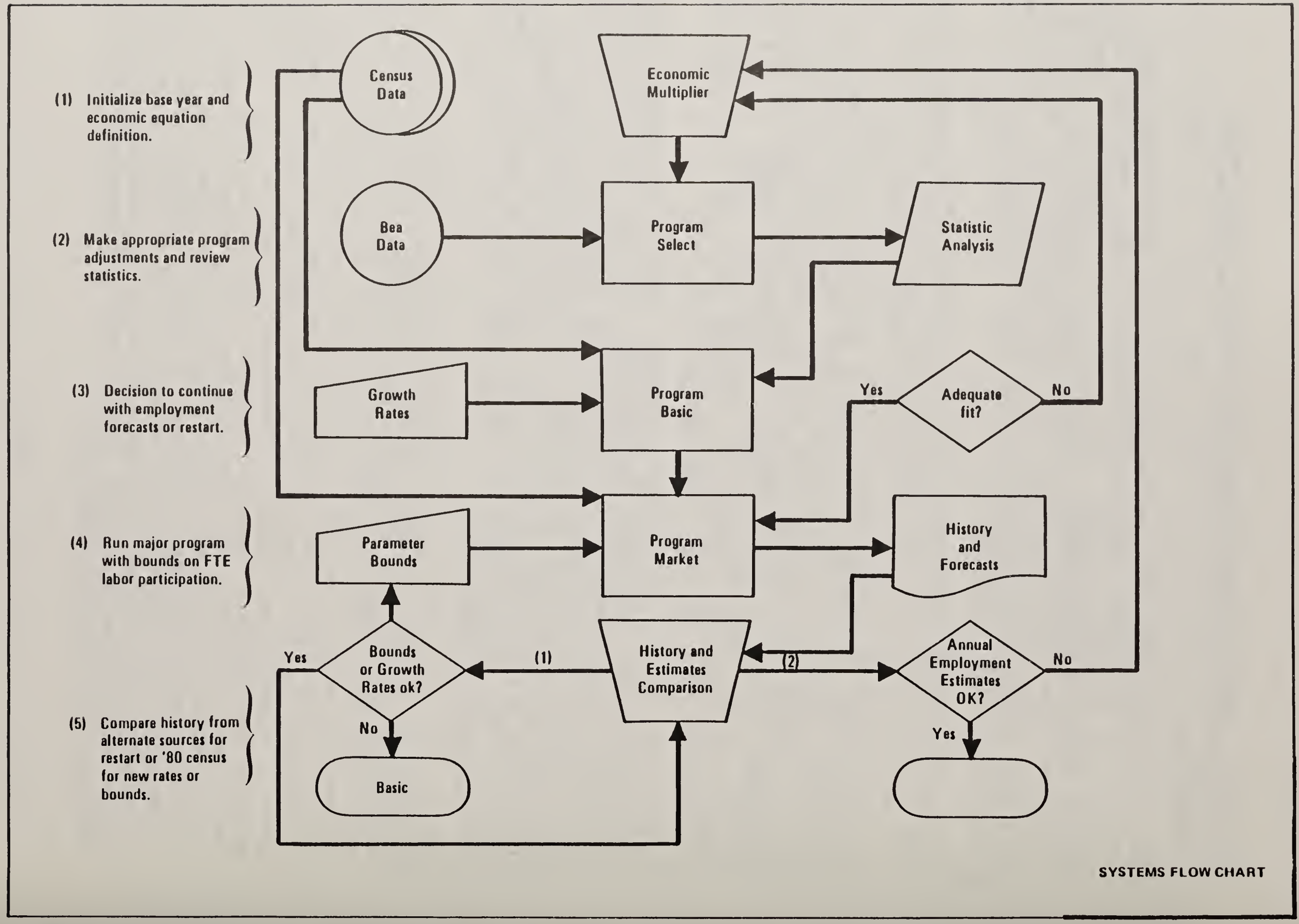
Western Research Corporation has developed a multi-county economic model to analyze the demographic and economic effects of large energy development projects in the western states. This effort has resulted in a modeling process which places more emphasis on statistical technique than does the more traditional pure simulation model. The modeling process combines computer programs, census information, and survey results to form a method for analyzing economic and demographic changes during the development of energy facilities or mineral deposits.

Since employment-related migration is a large component of the regional change that results from energy development projects, the forecast of migration for the individual counties is the most crucial element in predicting the impact of these commercial facilities. The use of computer programs for this endeavor allows the analyst to incorporate more detailed and site-specific information than would be feasible with simple algorithms. The result is an increased capability to analyze the area of site influence, estimate the regional effects over periods as long as thirty years, and test proposed mitigation strategies for alleviating socioeconomic impact. Since the specific multi-county area defines the geographic scope of analysis, comparisons among the counties can include the effect of commuting, inter-county trade, and other income leakages in the area.

Although the process is designed to produce forecasts for annual average county population, employment, and earnings, the model can also provide estimates of these measures for current and previous years. With this capability, the process allows cross-checking or "backcasting" to increase the reliability of the estimates and forecasts. Population estimates developed by the model can be compared to other sources such as census P-26 estimates or local point-in-time surveys which have been conducted by community planning agencies. This system of backcasts includes other variables and is discussed below for each relevant section.

Perhaps the major advantage of Western Research Corporation's (WRC) methodology is the balance between programming software and human decision-making. Diagram 1 displays the basic elements involved in the modeling process. These elements can be categorized as either data sets, programs, or research decisions. The data sets, which are represented by circles in the diagram, are constructed from census data and employment expectations from a survey of current and announced energy development activity in the region. The use of county-specific data for the base period provides the necessary comparison between historical evidence and model results which constitutes the backcasting test. The research decisions, which are represented by the diamond figures, quantify major assumptions concerning economic parameters and other estimates. A number of decisions must be made on the basis of an analysis of preliminary or trial forecasts and backcasts. Subsequently, the programs which are represented by rectangular figures in Diagram 1 compute the forecasts of economic growth and demographic change from these data sets and research decisions.

Diagram 1



SYSTEMS FLOW CHART

The modeling process can be divided into five stages. Each stage incorporates some or all of the above three elements. In stage one, information from either a census year or another similar base year is collected for each county. Also, the particular form of the economic multiplier is chosen for subsequent testing. This testing is done in stage two. In stage two, program "select" is utilized to determine the basic component of employment and earnings for each of the counties. The remaining portion, the secondary component, is compared to basic labor income in accordance with the definition in stage one. The comparison is usually a ratio which is estimated in a standard statistical package.

These first two stages represent an economic-base analysis of the economy of each county in the region. This analysis is undertaken to determine the export component of each county's economy. The magnitude of exports is measured by both the employment and earnings in the particular sector. Therefore, county economic activity is separated into two sectors: 1) the basic sector which produces goods and services for export and 2) the secondary sector which produces goods and services for use within the county. The growth in the secondary sector is assumed to depend on the growth in the basic sector. The type of relationship between these two components is determined in the first two stages of Diagram 1.

Stage three of the modeling process involves the compilation of information on planned developments. A survey of employment expectations of current and announced mineral activity of energy developments is combined with extrapolations of growth in the other industries of the basic sector. These extrapolations, of course, are dependent on the outcome of the previous stages. Stage three would not be undertaken unless the analysis in stages one and two passed the appropriate statistical tests. The particular tests are dependent on the multiplier definition and historical data.

The fourth stage utilizes a combination of demographic and economic-base analysis to predict changes in the labor market of the region. Monitoring of the labor market provides the estimates of demographic and economic growth in the region. This growth is measured by the population changes in each county, including net natural increases and migration. In addition, employment and earnings growth are measured for each county and classified by broad industrial divisions. These estimates and forecasts are provided in convenient tables for further testing or backcasting in stage five.

Stage five is the crucial point in the modeling process. At this point, the model results are evaluated by comparing the estimates of the economic and demographic measures for a suitable historic period to actual observations or estimates from other sources. This type of testing is called a backcast, and it often requires decisions based on professional judgment. Since the comparison includes many different measures, a strictly formal test is not appropriate. However, one important measure is the estimate of industrial employment for each county. If these estimates do not pass the backcast test, the modeling process is re-initiated at stage one. This re-initiation includes redefining the basic component and the related multipliers. Other comparisons might lead to a re-examination of basic sector growth rates or

other assumptions and, as a result, the modeling process would be redone at stage three.

The five stages in the modeling process discussed above produce a baseline forecast. Many of the mitigation strategies which are designed to alleviate impact problems are based on the analysis of site-specific effects. These effects are projected with the WRC regional model by including the employment and earnings expectations of a particular development project in the data set. The results of this analysis (the impact scenario) can be compared to the baseline forecasts (baseline scenario) to provide a measurement of site-specific effects for any industrial or mineral development in the basic sector. These effects include the increased in-migration, personal income, and secondary employment for each appropriate county. Changes in labor characteristics such as labor force participation, unemployment, and shifts in industrial employment are also measured. The specific details of the process are examined in the following discussion. Initially, the first three phases of the modeling process are discussed in relation to the economic base of the region. Then, the migration analysis is described for the remaining stages.

ECONOMIC BASE ANALYSIS

Only a few methods exist for forecasting the impact of mineral development on a regional economy. Economic-base analysis is the most commonly used approach, and a modified version was adopted for the multi-county regional analysis. Economic base analysis is used to estimate the impact of economic change and forecast the effect of growth on a small regional economy. This methodology monitors the economic changes in those industries which produce goods and services primarily for export from the county (therefore the term basic or export component). Changes in the region's remaining industries are measured by determining the historical relationship between the two components. The region and the individual counties sustain economic growth by specializing in the production of selected goods and services for export. As this production increases, it is assumed that this increase induces a change in the remaining economic sectors or service industries. It is the measurement of this relationship which is the subject of economic base analysis. Since this method of forecasting demographic and economic events utilizes the basic component of the counties in the region, the identification of this economic activity is the crucial first step in the modeling process of the region.

The economic base can be measured by using either the output of goods and services, personal earnings, or employment, but the preferred unit of measure is employment because this proxy provides a good indicator of economic opportunity. It is assumed that, especially for basic jobs, economic opportunity is the prime motivation for changes in county population. Since the ultimate goal is to forecast the changes in both the economy and the demography of the region, this unit of measure is the more easily defensible. As employment demand in an export industry increases, the local labor force may be quickly depleted. When the local labor force is depleted, the opportunity for new jobs would ordinarily draw new employees from outside the county. However, in areas where commutation or inter-county trade are extensive, there may be little correlation between in-migration for service jobs and changes in basic employment in the county. This development prohibits the determination of any straightforward relationship between the number of new employees in an export industry in a certain county and the changes in service-related industries for that county. Because this situation causes a distortion in predicting service-related growth among the counties, both employment and earnings are used to measure the basic component of each county in the region.

In the previous chapter, the first three stages of a five-stage process were identified as the major steps in determing the economic base of a county. These steps allow the comparison of two contrasting methods which can be used to derive the percentage of an economic sector which can be classed as basic. This basic-to-non-basic percentage is first calculated using location quotients on a regional (adjacent counties), state, and finally a national comparative basis.

Location quotients measure the degree of specialization of an industry in a region or county by comparing that industry's percentage employment in the county to its percentage in a similar economic area. To derive this ratio for

the counties in the region being analyzed, the ten employment classifications are divided into basic and secondary groups. If the location quotient for an industry is greater than 1, then it is assumed that the county exports the product of that industry. The export employment (X_{jj}) of industry j in county i, if its location quotient is greater than 1, is then calculated. If the location is equal to or is less than 1 for an industry, then it is assumed that industry does not export from the county, since it has less than its share of the industry in the region. This estimation technique is superseded in some instances during the test phase (stages one through three, diagram one) of the modeling process. In some cases, backcasting will suggest that all the employment in an industry should be considered basic. This will often occur with agriculture, manufacturing, and the federal government sectors.

The basic component of each sector in the region's counties can also be determined using the minimum requirements technique. This method estimates the basic-to-service sector employment ratio from a comparison of sector employment to total employment for demographically and economically similar counties. For example, if the construction sector employment of ten counties with similar employment totals is compared, the service employment for construction in all the counties becomes the employment of the county with the minimum for that sector. The remaining employment in the sector is defined as basic.

If a significant difference exists between the location quotient or minimum requirements approach, then each method is tested using at least a five-year historical period. The validation test is accomplished by using the appropriate basic component to predict secondary employment during the five-year test interval. The most accurate procedure is then used to produce the estimates for the period of interest. Under this framework, the basic component can be defined as that portion of economic activity in the county which is devoted to production for export as measured by the relative concentration of earnings and employment in the region.

MULTIPLIERS ESTIMATION

The percentages derived in the preceding section are used to calculate the secondary multipliers for each county. Historical evidence suggests that the basic-to-service employment ratio varies among different industrial groups and counties. Under these circumstances, the use of empirical "income multipliers" to estimate service employment produces more favorable results. Income multipliers are estimated for each industrial sector in the county as a function of both county and regional basic labor income. The use of these parameters measures the difference in service levels among the counties in the region. For example, employment in the non-basic employment service industries may be insensitive to changes in basic employment for some counties if either excess capacity or market centers for certain services exist in the region.

These parameters are estimated using the historical relationships between the employment and personal income figures of the U.S. Bureau of Economic Analysis's Regional Economic Information System. The employment figures represent employment by place of work (both covered and non-covered) for proprietors and wage earners. The income figures represent average annual

earnings for both wage earners and proprietors. The appropriate income multipliers to be used during the forecast periods are then calculated. Therefore, the estimate of service employment is a function of basic labor income in the county and in the region.

The technique of using income multipliers gives a measure of the effects of commutation in the region. As has been previously discussed, a commuting distance of 110 miles or 2 hours is not uncommon during the construction phase of many energy development projects. The service demand by these highly mobile individuals is rarely entirely met by the host county. The use of regional basic labor income, which is simply the sum of labor income in each county, provides a proxy or indicator of the economic and demographic consequences of commuting by allowing the remaining counties to provide some of the service needs of this work force.Therefore, this technique monitors the regional impact of development activity and not just the host county service sector response.

CHANGES IN THE BASIC/SERVICE RATIO

The use of the income parameter to measure changes in the economy during periods of growth in the basic activity has another important advantage for forecasting. Although only employment and income are used to measure economic change in the region, other factors in the economy are not assumed to remain constant. Service firms, plant size, inventories, and other commercial developments will respond to changes in the economy's base. Because these factors will influence production, the base/service ratio will change over time.

In order to determine the change in this ratio over time, a distinction has been defined between marginal and average multipliers. The average multiplier varies from period to period since this parameter is the ratio of total non-basic to total basic employment or income for the period. In WRC's forecasting, the marginal multiplier for each economic sector is utilized to determine the change in service employment for each year of the forecasting period. This parameter can be defined as the number of additional service employees per thousand dollars of additional basic labor income. The use of average figures for forecasting is dependent on the time period in which it is measured. The marginal technique captures the changing nature of the service industry over time and, therefore, allows for relative growth in the appropriate sector.

This method appears reasonable when one considers that an additional basic employee in the region today would find economic conditions different than one would in the past. It seems unreasonable to forecast this impact on the service sector using the same ratio now as used before. Average analysis tends to overstate impact in counties where impact is transitory. This is especially the case for sectors whose excess capacity or inventory can handle additional demand for services without hiring additional employees. On the other hand, the average method would understate impact in sectors that are labor sensitive and better able to expand service without extensive capital investment.

In order to derive the multipliers developed in the preceding section, information on the appropriate measure must be collected to establish either a historical time series or a cross-section of similar counties. Even if a time series data base is selected, it is convenient to establish a similar series for at least a few like counties in the region for the purpose of testing. This additional attention to detail helps to substantiate the existence of lagged relationships between basic and non-basic sectors. In the simple economic base analysis, changes in total employment are predicted by assuming that the service sector will respond a period or two after the initial change in basic activity. Unfortunately, the parameter or multiplier for measuring this response is estimated from data which is collected for the same historic period. Since the conditions in which the estimator is defined are different than the situation in which it is used, the prediction of total employment must be suspect. The income multiplier circumvents this problem since it is estimated over a twelve-year period. This additional historical series implicitly measures the lag in service response if it exists for each sector. Also, the marginal definition of the income estimator allows for the continued circulation of basic earnings until it is eventually dispersed through expenditures on items brought into the region.

The modeling process of the Regional Economic Model concentrates on the measurement and identification of the basic component. This concentration allows the incorporation of the effects of commutation and out-of-county purchases in the region. Both the selection of contiguous counties and the study of each sector separately allows a statistically sound estimate of these economic events. The existence of trade or market centers in the region, which increases out-of-county purchases, could not be substantiated without this detail for each industrial sector. In addition, the analysis of each county in the region during an extended historical period quantifies the effects of commutation and market centers on both economic and demographic growth.

MIGRATION ANALYSIS

Program Market, which is used in Stage Four, is the major link in the modeling process. The program is divided into three parts: a demographic section; and a migration section. The three sections are a model of the labor market and provide population and employment projections. A structural overview of the model is shown in Figure A1. The demographic section couples the determination of the natural population increase in the county from historical birth and death rates with previous population and employment demand relationships to establish the county native population forecasts. The native labor force for the county within the current population represents the locally available supply of labor. The economic section estimates county specific labor demand for major industrial classes. The unit of analysis is county Standard Industrial Classification (SIC) employment. The basic employment component, as previously discussed, is determined from the labor income of this basic employment. This income, or industrial earnings, is the major economic variable used in the measurement of impact, growth and economic change of the area. The assumptions made in Stages One through Three allow the estimate of the secondary employment from this variable. The sum of the two components gives the estimate of annual labor demand for each county.

In order to determine migration for each year, the estimate of native labor supply from the demographic section is compared to the industrial and agricultural demand for labor from the economic section. If the demand for labor, which is estimated for each county, cannot be fulfilled by this native work force, additional employees are believed to migrate into the region. The extent of this migration is measured by a comparison of the unemployment rate to an historically determined range. This range in conjunction with changing labor force participation rates allow for some labor demand to be filled by unemployed or new entrants into the work force from the native population. The migration section continues to draw persons from outside the region until employment demand is met for each county. When the labor demand is met, the population, employment and income are tabulated and the program advances to the next year and the initial population becomes the previous year's estimate.

Although the census publication, Current Population Reports, gives the population estimates for the intercensal years 1971 through 1978, and the 1980 census data is readily available, new estimates for these years are developed by the multi-county model. By developing independent estimates for these years, the effects of parameters within the model can be validated by comparison of the population estimates to those indicated in other data sources.

The Economic Section: Reaction to Growth

The economic section calculates the annual changes in labor demand for each county from an analysis of the county's economic base. This methodology monitors changes in labor earnings in those industries which produce goods and services primarily for export from the county. Changes in employment and earnings in the region's remaining industries are measured by determining the historical relationships between the two components. The measurement of these secondary changes give estimates for each county in ten industrial sectors.

Whether the basic jobs are filled locally or by outsiders, the new jobs generate additional regional income through the salaries paid to the new workers. The additional employees and their income create demand for locally produced goods and services. This additional demand for local goods and services leads to increased employment in service-related industries. It is assumed, therefore, that as employment in a basic activity increases in a region or county, this increase induces an increase in the employment of the secondary sectors in the region.

Employment expectations of basic industries, especially mining, influences the population and employment estimates and forecasts. An extensive review of data sources such as reports of the Overthrust Industrial Association, The Wyoming Department of Economic Planning and Development's Wyoming Minerals Monitoring System, the Annual Report of the Wyoming State Inspector of Mines, and the Wyoming Employment Security Commission's Area Breakdown Report provided an assessment of future labor conditions. Current earnings and wages are then adjusted accordingly to determine the basic labor earnings of the local economy.

The combination of these employment sources and the estimates of basic labor earnings provides the information for estimating secondary employment. This relationship is estimated using the historical relationships between these two indicators observed from 1969 to 1980 for each county and sector. The income figures represent average annual earnings for both wage earners and proprietors in all the basic sectors. The appropriate income multipliers to be used during the forecast periods were determined by the analysis described earlier. The basic and secondary components are then summed for each sector to provide an estimate of total labor demand for each county.

The earnings for each sector are then recalculated for each county to allow for service sector productivity. One of the advantages of using this procedure is the ability to compare conditions using both employment and earnings. The multi-county regional model allows these comparisons over the twenty-year period (ten years of historical and ten years of the forecast periods) for each Standard Industrial Classification. The categorizations especially provide information on the diversity of economic change as a result of the intensive mining development in the multi-county area. Each county's secondary employment, earnings and total employment for each sector is displayed in convenient tables for subsequent analysis. Since these results are provided for the backcast, as well as the forecast period, comparative tests can easily be conducted with the values as reported by the Bureau of Economic Analysis.

Migration Section: Determination of Migration

In order to analyze the growth of the counties in the region over the twenty-year period, it is necessary to determine the effect of current and announced mineral development on the requirement for migration into the region. The problem of estimating this component of regional growth is compounded by the mobile character of the work force, especially construction employees. In addition, the tendency of the native labor force to fluctuate in response to the excess of both basic and service job opportunities must be

taken into account. These characteristics are integrated into the assessment of growth and migration through the local labor market as shown in Diagram 2.

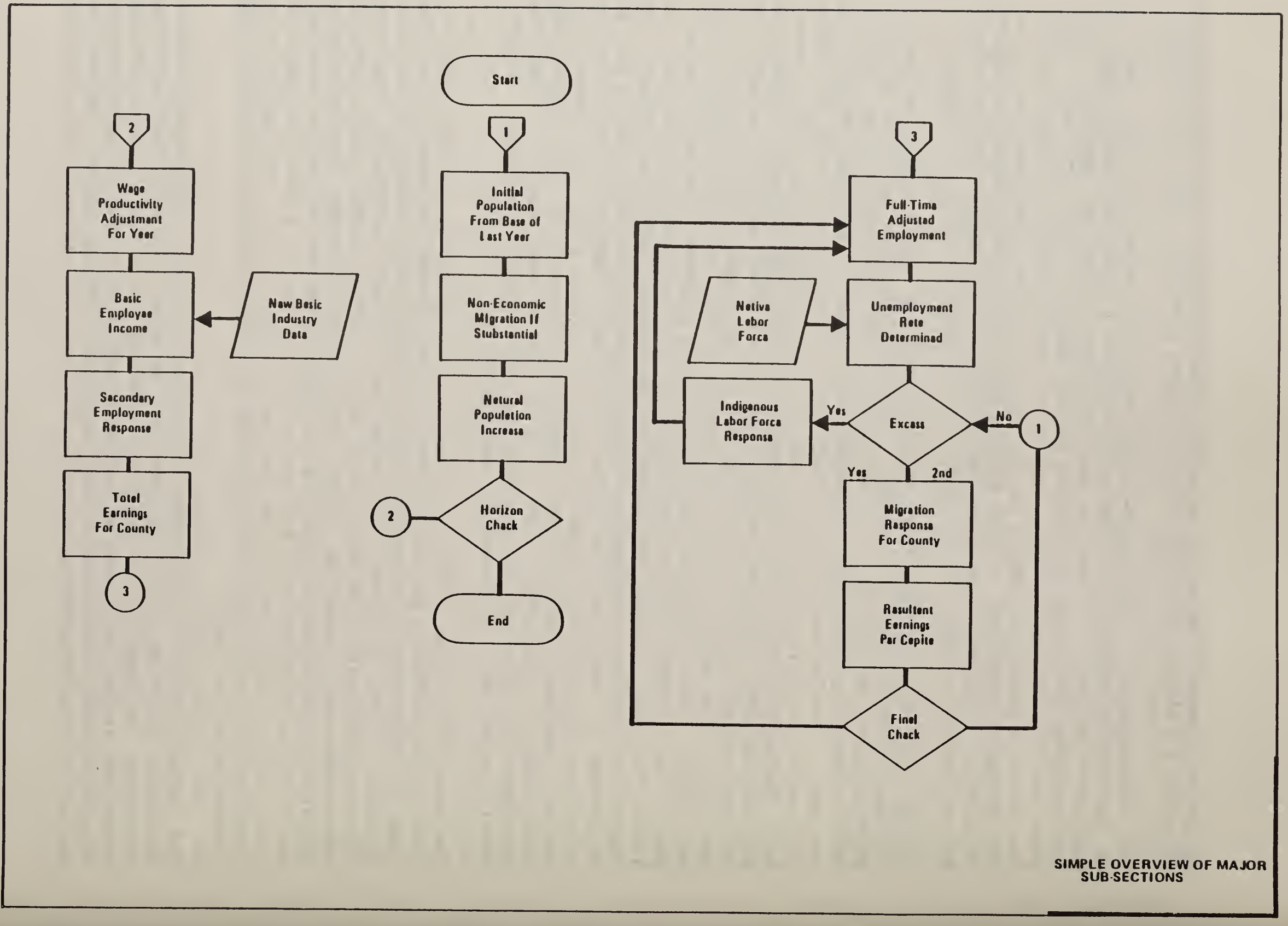
The determination of employment-related migration during any one year was accomplished by comparing the demand for workers with the estimated supply of available persons. It was assumed that all positions demanded would eventually be filled over the course of the year. If the local labor supply could not fill all the positions, then migration was assumed to have resulted. The extent of employment demand was the crucial factor in determing employment and population migration. It was assumed that this demand changed in response to changes in external demand for the output of each county's basic industry and the secondary impact of this growth on employment in remaining industries.

In the migration section, this labor demand from the economic section is compared to the native labor supply. The labor demand is measured as number of jobs that are available in each county. This employment is by place of establishment and, therefore, represents the number of available jobs during the year. (The Regional Economic Information System, published by the Bureau of Economic Analysis, represents average annual employment by place of work, both covered and non-covered, for proprietors and wage earners. Population estimates do not directly follow total employment since residence and multiple job adjustments must be applied.)In order to compare this figure to the available labor supply, it must be converted to full-time equivalent (FTE) employment. One FTE employee can be defined as one person who works one full year. The difference between this employment and number of jobs is that the former has been adjusted for multiple-job holders, part-time workers, and seasonal or temporary employment. The adjustment factor, which can in part be determined by comparing the Bureau of Economic Analysis (BEA) place of establishment with the employment security and census place of residence data series, averages about five percent nationwide. The appropriate county-specific percentages are used to derive the number of "persons employed" as provided historically by the Wyoming Employment Security Commission and the U.S. Bureau of Labor Statistics.

The number of persons which are needed to fill the estimated labor demand is then used to calculate an unemployment rate from the native labor force. This rate is compared to a historical range for each county through an iterative process. If the calculated rate is outside the range originally, the labor force rate increases by an incremental amount. After another recalculation of the unemployment rate, the excess or deficit is drawn from employment migration. The migration analysis is executed as many times as necessary until the unemployment rate for the particular year is within the range for each county. Since these ranges are set for each county, the comparison in conducted for each county until all the counties in the area are within the boundaries of the range.

The determination of employment migration must be supplemented with a determination of population migration. The population associated with the migrating employees is determined through historical characteristics identified in the 1980 Census and other surveys such as the monitoring reports from the Laramie River Station near Wheatland, Wyoming, and the Construction Worker Profile, (Mountain West, 1975). The migrants are added or subtracted

Diagram 2



SIMPLE OVERVIEW OF MAJOR SUB-SECTIONS

to the appropriate county population. The migration sector will continue to add or subtract from each county until the labor force is sufficient to fill employment demand in the region.

In order to assess the stability of the region in the forecast period as a result of these migration calculations, the per capita income of each county is determined as the final calculation for each year. This calculation maintains the major link between the three sectors. The per capita calculations convert anticipated wages to realized wages and, therefore, insures that the actual prevailing wage clears the labor market. Once this equilibrium is reached, the process returns to the demographic sector and begins the analysis for the following year.

SECTION III: HOUSING DEMAND MODELING PROCEDURE

INTRODUCTION

Wyoming Research Corporation has developed an integrated housing demand assessment methodology which relies upon the economic and demographic characteristics projected by WRC's Regional Economic Model. This approach incorporates regional economic influences and changes in household characteristics which may be expected when large numbers of in-migrants join the present regional population. The expected housing demand is described for a baseline scenario as well as for the project development scenario. Housing demand attributable to the project development is derived as the difference between the development and the baseline scenario.

GENERAL HOUSING DEMAND CONSIDERATIONS

All housing selection decisions are comprised of a wide variety of social, economic, and physical factors. These range from the consumer's desire for specific housing types with their attendant quality and size characteristics to his ability to buy or rent, to a private developer's decision to undertake large scale development, and to government's commitment to assure adequate housing for each resident in its jurisdiction. Adding to the complexity of these factors is the fact that the activities of building and buying homes are extremely disjointed, not only in a developing region but also throughout the nation. Homes are generally built and financed by many small builders working with banks and savings and loan institutions who often make their decisions on what, where, and when to build with limited information as to the future market.

WRC approaches the study of housing markets from both demand and supply considerations. Since, in this market, it is not clear whether demand produces supply or supply produces demand, WRC assumes that future dwelling demand stems not only from households' desires and their ability to pay to meet these preferences but also from the supply characteristics of the existing housing stock in a community and the housing supply actions planned by the proposed developer. Therefore, elements of supply considerations which can be effectively estimated, such as the distributional influence and current costs of the existing stock, are explicitly included in the demand model. Other supply factors, such as future capital availability and mortgage interest rates, construction capability in a given location, and zoning or building restrictions which cannot be projected over a long planning horizon are not specified but are implicit in the changes derived through analysis of the 1970 to 1980 census period.

There are three ways of viewing housing demand: (1) demographic demand, (2) demand resulting from changes in tastes and lifestyles, and (3) demand resulting from special needs. Demographic demand is derived using WRC's Regional Economic Model to identify total households. The regional model also forecasts total household income which allows WRC to describe "effective" rather than simple demographic demand. Demand resulting from changing tastes and life-styles is reflected through considerations of different preferences of households made up of workers in the construction industry and those of all

other employment activities. Demand resulting from special needs is not explicitly described in the model but is derived from the construction employment required for the project being studied. The housing requirements of construction workers comprise WRC's focus on special demand.

METHODOLOGY

Typically, new housing has been projected as a function of in-migrating households distributed through either their preferences for housing types or the existing housing mix within the community. This approach considers only the demand aspects and fails to make allowances for supply considerations other than the existing housing stock. Including current costs for various types of housing and the implied incomes required to secure the specific type which may be preferred (using constant dollars for each) allows the transformation of demographic demand into effective demand.

WRC's Regional Economic Model determines the households requiring housing throughout the forecast period using a modified headship county methodology based upon demographic characteristics described by the 1980 Census for the base case. The number of household heads is then adjusted to reflect family (married) household heads and single, unrelated households using percentages shown in the Construction Worker Profile (Mountain West Research, December 1975) or newcomers in the (development case). The number of single, unrelated household heads is also adjusted by dividing the single, unrelated households by the average number of roommates per single employee. These data are provided by an unpublished survey associated with the 1980 update of the Wyoming Housing Monitoring System (Wyoming Department of Economic Planning and Development) and the 1980 Census non-family household size. The total number of adjusted household heads (AHH) is the sum of family, single with roommate, and single individual households. This sum is the basis for the number of dwelling units necessary to support the influx of new households.

The model uses the latest wage and salary estimates by employment category provided by the Regional Economic Information System of the U.S. Bureau of Economic Analysis along with wage and salary surveys to estimate future household income.

The total number of dwellings demanded is developed by increasing the number of households by an assumed institutional minimum vacancy rate. This vacancy rate allows the consumer choice and reasonable mobility within the market area while allowing sufficient profits to owners to maintain a steady flow of new construction. The rate is determined by inactive electrical meters in the local utility service area, or if data are unavailable, the statewide average rate. In addition to this form of vacancy, an adjustment for seasonal housing is made to allow for dwelling units which are generally available to accommodate new households. This adjustment is derived from census and local studies throughout the historical period.

The distribution procedure is an income-preference balancing algorithm. The minimum income necessary to purchase single family units or mobile homes and to rent multi-family units and mobile home lots as determined by the cost of these elements of housing is compared with the average household incomes of

family and single households to establish a measure of affordability. This reference is then compared with the household preference for each housing type (single family, multi-family, mobile homes, or other) as provided in various surveys such as the unpublished 1980 update of the Wyoming Housing Monitoring System (DEPAD), the Construction Worker Profile (Mountain West, 1975), or the Laramie River Station Monitoring System reports. Household incomes are assumed to have a log normal distribution. The deviation from the mean (which is assumed to be the minimum required income to secure the housing type) reflects the percentage of households which can afford the type.

Changes in housing tastes and lifestyles are incorporated in the effective demographic demand procedure through different preference ratios and household income levels for non-construction and construction workers. Dwelling demand is first determined for the non-construction worker households as described above; then it is also calculated for construction workers and summed to give total effective demand.

Demand for special needs, such as those of construction workers, is derived from the basic and total employment projections of WRC's Regional Economic Model. The ratio of basic construction employment attributable to the development project compared with the total employment attributable to the development project is used to allocate total dwelling demand to those direct project employees. The project-related dwelling demand is then allocated to two employee categories: (1) project construction workers and (2) project-induced secondary workers.

The overall housing demand is used to describe potential project impacts and is the basis for WRC's discussion of housing impacts. Comparison of the growth rates of demand projected for the economy with the project with the rates expected without the project indicates the changes in the housing market new residents will face.

The special demand analysis (project construction workers) provides a basis for discussion of potential mitigation requirements and impact alleviation actions. A development such as a man camp is shown in the housing analysis as the major part of the demand for "other" housing units. The basic allocation to housing type procedure is as described above. More explicitly, the effect of a development such as a man camp is integrated into the determination of demand for each housing type in the proposed action case. The host county population forecast is reduced by the assumed capacity of the man camp. The remaining population is assigned to households assuming the 1980 Census mix of family to non-family households, which is then distributed to type as described above. The population or one person households to be included in the man camp is then added back to the housing demand in the "other" category. In order to account for the maximum effective reduction of the potential demand for private housing market response due to bringing a man camp into this market, the full average annual construction work force associated with the man camp is assumed as the capacity of the man camp. This assumption may seem inconsistent from a pure demand standpoint as might be reflected in assumptions chosen for the population modeling described previously. However, housing market analysis must incorporate both demand and supply elements as fully as possible. The Census ratio of non-family to family households

(single status) assumption relates solely to the use of household composition of the population for public infrastructure analysis and a look at housing demand excluding any supply effects imposed by the project participants. Including a man camp capacity at 100 percent of the average annual construction work force within the net household demand demonstrates the maximum effect this supply action will have on the household demand for single family, multi-family, and mobile homes. This portrays the minimum response necessary by the private housing market. This approach is considered appropriate since it shows the private market the level of demand which might allow entrance into the market profitably, under the conditions where a man camp is developed to its maximum average annual capacity. It also allows for an analysis over time to determine if the minimum level of temporary demand during the construction period will be sustained following construction. Intertemporal analysis of this nature is necessary since developers cannot justify the heavy investment required to meet housing demand which lasts for a period significantly less than that required to amortize their investment.

Use of a minimum single status assumption for the population modeling and the total net housing demand is the most conservative approach from which to support public sector planning. Using the 100 percent of average annual work force capacity as a housing supply assumption is the most conservative approach which supports private housing development planning. There are obviously interactive effects between population and housing demand forecasts since the amount and type of housing supply will affect the size, composition, and location of population changes. This interaction has been captured in the most appropriate fashion for the planning purposes required by both the public and private sectors.

SECTION IV: PUBLIC FACILITIES AND SERVICE STANDARDS

INTRODUCTION

Three methods of projecting needs for public facilities and services within the area of site influence are used: 1) state standards which are generally accepted as providing adequate service and facilities, 2) standards recommended for one of the counties within the area of site influence, and 3) existing levels of service derived from the current personnel-to-population ratios and professional judgment. The first method is used for the types of services and facilities which are comparable between communities. The second method is used when regional standards are most applicable. The third method is used when no national, regional, local, or professional standard exists.

The following list includes methods used for projecting needs for each area of concern covered in the analysis.

ADMINISTRATION

Personnel needs are projected from existing personnel-to-population ratios. The adequacy of existing facilities and staffing is determined through discussion with local officials, and existing deficiencies are taken into account in estimating baseline and project-related future needs. Elected officials are included in staff counts but are not assumed to increase as the population increases.

LAW ENFORCEMENT

Estimated requirements for law enforcement are based on recommendations included in Scenario: A Forecast of Needs (Wyoming Department of Economic Planning and Development 1976) and recommendations from the architectural firm of Lord and Associates, Sheridan, Wyoming. Requirements for each county sheriff's department are based on 1 officer per 1,000 population, 1 support person per 2.5 officers, and 1 vehicle for each 2 officers. Requirements for municipal police departments are based on 2 officers per 1,000 population, 1 support person per 2.5 officers, and 1 vehicle per 3 officers.

ROADS AND BRIDGES

The current personnel-to-population ratio is used to determine increased personnel needs as population increases. Facility needs and equipment needs are based on local recommendations.

FIRE PROTECTION

The current personnel-to-population ratio is used to arrive at increased personnel needs as population increases. Equipment and space needs are developed by the local fire department officials.

HEALTH CARE FACILITIES AND PERSONNEL

Estimated requirements for health and medical personnel are based on Wyoming

statewide average ratios, as specified in Wyoming Health Profiles (Wyoming Division of Health and Medical Service 1981). The following personnel-to-population ratios are used:

Physicians	1:1,311 (primary care)
Dentists	1:2,047
Public Health Nurses	1:5,813
RNs	1:224
LPNs	1:659

The number of hospital beds required is based on service levels recommended by Hill-Burton Standards for Hospitals, assuming a 60 percent use rate and 80 percent occupancy rate. The rate is 1:488 hospital beds-to-population. The number of ambulances is based on statewide average ratios of 1:3,594. The number of nursing home beds is based on the state average of 1:1,283 population.

WATER TREATMENT AND DISTRIBUTION

The "Sweetwater County Community Facilities Plan" (ibid.) recommends 200 gallons of treated water per person per day. As indicated by the facilities plan, "This figure of 200 gallons/person/day acknowledges the trend toward greater water conservation being practiced in arid environments" (ibid. p. 10).

SEWAGE TREATMENT

A standard of 130 gallons per day per person was used to estimate recommended sewage treatment capacity. This standard is recommended by the Water Division of the Wyoming Department of Environmental Quality.

LIBRARY FACILITIES

Estimated requirements for libraries are based on standards for small libraries developed by the Public Library Association. The following ratios are used: 15,000 volumes for the first 5,000 population plus 2 volumes per capita for populations over 5,000; 1 professional staff person per 1,500 population; and 1 clerk for every 4 professionals.

PARKS AND RECREATION

A ratio of 6.2 acres per 1,000 population is used when regional recreational and park land is available. A ratio of 10 acres of park land per 1,000 population is used, based on the recommendations of the "Sweetwater County Community Facilities Plan" (Sweetwater County Association of Governments 1981). This ratio is recommended when abundant developed and undeveloped outdoor recreation is not available and when school recreation facilities cannot be utilized. Current personnel-to-population ratios are used to project future personnel needs. Unfortunately, no standards exist for indoor recreation needs.

SOLID WASTE DISPOSAL

Estimated requirements for sanitary landfill acreage are based on .15 acres per 1,000 population per year as specified in Scenario: A Forecast of Needs (Wyoming Department of Economic Planning and Development 1976). Because of the number of variables affecting landfill capacity, where possible, local estimates of adequacy and capacity are deferred to.

HUMAN SERVICES

Human services needs are based on the present staff-to-population ratios. This approach assures that present service levels will be maintained in the future.

SCHOOLS

Expected school enrollments are based upon existing average daily membership (enrollment) to population ratios in the appropriate school district, town and/or service area of an individual school. Estimated requirements for classrooms and teachers are based on regional average ratios. These ratios are: one teacher per 15 elementary students, one teacher per 16 secondary students, and 20 students per classroom. Requirements for support and administration personnel are based on existing personnel-to-population ratios.

OTHER SERVICES

Requirements for all other services, such as senior citizens and day care, are based on existing service-to-population ratios.

SECTION V: LOCAL GOVERNMENT REVENUE AND EXPENDITURE ANALYSIS

INTRODUCTION

Projections of revenue and expenditure levels for the various entities involve three major steps as well as input from other components of the overall socioeconomic analysis. The three steps of the fiscal projection methodology include: analysis of historical budget data for each entity, determination of the appropriate techniques to be utilized in the projection of specific budget categories, and generation of revenue and expenditure projections for each entity. If incongruities appear in the projections, the historical data and techniques are assessed again, and new projections are generated and reviewed. A more complete discussion of each of these three steps is given below.

HISTORICAL BUDGET ANALYSIS

Analysis of historical budget data is undertaken for each of the local governmental entities involved. Copies of the municipal, county, and school district budgets for the past fiscal years are examined to establish available sources and levels of revenue for each entity and to find each department's pattern of using its funds. An assessment is made of each revenue and expenditure category to determine if changes are directly or indirectly related to population or if they fluctuate in response to other factors. Some fiscal categories such as revenue from sales tax and operating expenditures for law enforcement follow the same pattern as changes in population. Other budgetary items such as revenue from state funds remain relatively constant.

PROJECTION TECHNIQUES

The analysis of historical budget data indicates that four elements in projecting revenue and expenditure levels must be taken into account.

1. A majority of the revenue and expenditure categories change in response to population and are projected on a per capita basis.

2. Some of the budget items remain relatively constant over the period of the historical analysis and, therefore, are assumed to remain at existing levels.

3. The revenue generated by the new impact assistance tax, project-related sales and use taxes, the new severance tax on oil and gas, and ad valorem taxes, which constitute a major component of municipal, county, and school district financing, is primarily dependent upon industrial and population growth within the boundaries of the taxing district.

4. The cost of new capital facilities, while related to population growth, must be projected on the basis of the conclusions provided by the analysis of the public services and facilities.

The methods for generating fiscal projections and the appropriate budget items are discussed below.

A per capita projection technique is employed when a revenue or an expenditure item increases or decreases directly in proportion to the number of residents or, for school districts, school enrollments. Within the county jurisdictions, per capita revenue sources include sales and use taxes, gasoline tax, cigarette tax, license fees and fines, and miscellaneous taxes. To project these revenue source, a multiplier representing the appropriate revenue per individual was obtained from the historical budget data.

Revenue from county services also changes with population growth. This category includes funds generated from property taxes to support county museums, fairs, libraries, hospitals, etc.

The county expenditures projected on a per capita basis include both operating costs and capital costs (i.e., equipment, replacement, new vehicles, and maintenance costs) for the county general administration, law enforcement and judicial administration, roads and bridges, parks and recreation, fire department, and ambulance services. Also projected on a per capita basis are expenditures related to the various county services such as museums, libraries, airports, fairgrounds, and hospitals. An explicit assumption that revenue and expenditures for county services would balance has been incorporated into these projections.

Municipal revenue sources which are projected on a per capita basis include sales and use taxes, cigarette taxes, gasoline taxes, and license fees and fines. In addition, utilities revenue which accrue from the sale of electricity, water and sewer services, water and sewer tap fees, and sanitation are projected on a per capita basis.

Per capita expenditures for cities and towns are identical to the county categories. In addition, operating and capital expenses for utilities are also projected on a per capita basis. However, these capital expenditure projections include only equipment and replacement costs and do not include new facilities.

For the school districts, all general fund revenue except local and county property taxes are projected on a per student basis. The revenue sources included are local district revenue other than property taxes, county revenue other than the 12 mill tax, state school foundation funds, revenue from state lands, and federal revenue.

Per capita expenditures for school districts include instruction and institutional support costs, general and community support, and non-program charges.

A second method of projections, using a constant figure for either revenue or expenditure figures, is utilized for items in the county, city, and school district projections. Historically, these revenue and expenditure items do not vary directly with changes in population. While annual fluctuations may be apparent, the figures remain relatively constant throughout the period of the historical analysis. Therefore, these budgetary items were projected as constant values.

Constant items in the county budgets include both revenue and expenditures for federal revenue sharing, bond sinking and interest funds, and miscellaneous sources such as cash reserves.

Fixed revenue and expenditures for municipalities include federal programs, grants, loans, revenue sharing, bond sinking and interest funds, and improvement district funds.

For the school districts, fixed revenue and expenditures include bond sinking and interest and cash reserve funds. However, capital construction funds are considered to be fixed revenue because the historical analysis indicated a pattern of generating revenue for modifications and repair of existing school facilities. In cases where the school district has accumulated cash on hand to pay for future construction costs, those have been projected as fixed income under the subheading "Other Revenue". In the years where capital construction costs appear, the amount of revenue in "Other Revenue" has been decreased by the amount of the capital costs.

County and school district revenue from ad valorem property taxes is projected on the basis of the expected assessed valuation of the taxing district. The total valuation of each governmental entity is projected to include growth from two sources. First, a per capita increase resulting from personal property, homes, and new commercial establishments is added to the existing tax base. Additional valuation resulting from energy development is the second source of projected increases. All coal, oil, and gas developments in the four-county region which are included in the growth scenario utilized by the regional economic model to develop population and employment projections are also incorporated into the projections of assessed valuation. Increased valuation resulting from both mineral production and development of processing facilities is added.

The projections of assessed valuation and the historically determined mill levy for each county and school district are utilized to produce projections of total revenue available from ad valorem taxes. At the county level, property tax revenue for general fund purposes has been projected. The school district revenue figures include a component of property tax in the projections of revenue from local and county sources.

Projections of municipal and county revenue from the additional two percent severance tax on oil and gas adopted in 1981 are included for all appropriate entities. The figures are based on projections of annual production and value provided by the Wyoming Legislative Service Office. State law dictates that 3/8 of the state revenue from this source must be distributed to incorporated cities and towns and 1/8 to counties. The distribution within these categories is based on the population of that jurisdiction compared to the total population of all similar entities in Wyoming as determined by the 1980 federal census.

The effect of the 1981 Wyoming Impact Assistance Tax legislation upon municipal and county revenue is incorporated in the fiscal projections. With this legislation, additional use tax and sales tax revenue will be distributed to the counties in which large industrial facilities are being constructed.

The incorporated cities and towns in those counties will also receive a share of the additional revenue. This legislation will provide additional funds to the appropriate entities from the beginning of construction until the facility is 90 percent complete.

Necessary expenditures for new capital facilities are projected on the basis of need as determined in the analysis of available service and facility capacity. Cost projections, where possible, are based on estimates from the specific political jurisdictions involved.

DEVELOPMENT AND REVIEW OF PROJECTIONS

Preparation of the revenue and expenditure projections for each governmental entity is predicated on the first two steps of this process. The individual budget items are aggregated into major revenue and expenditure categories consistent with local accounting procedures. For instance, at the municipal level, per capita revenue and costs for general fund purposes were aggregated into major items while per capita revenue and expenditures attributable to utilities were kept discrete because they represent enterprise funds and are not included in general fund accounting.

The fiscal projections are generated utilizing the population figures provided by the regional economic model and the projection techniques suggested by the historical budget analysis. A systematic review of the projections to locate incongruities is the last step of the process. If inconsistencies are apparent in the figures, the first two steps of the process are repeated, and new projections are produced. This review and analysis continues until the revenue and expenditure projections are consistent with the remainder of the socioeconomic analysis.

CONCLUSION

The methodology utilized to generate revenue and expenditure projections integrates historical analysis, data from other components of the socioeconomic analysis, and several projection techniques to produce figures which are consistent with other facets of the study. However, it must be noted that FY82 was selected as the base year because it is the last full fiscal year for which actual historical data is available at this time. Furthermore, all of the projected figures are expressed in constant 1982 dollars to discount the effects of inflation on local revenue and expenditures.

SECTION VI: SOCIOECONOMIC GLOSSARY

ADEQUATE FOR

This term is used in the public service and facility discussions to identify the service labor or facilities necessary to meet the needs of the population projected for the year shown. It may be compared with the presently available labor or facilities to determine additional needs or potential excess capacity.

BASELINE

Projected growth under assumptions of change due to net natural increase (births minus deaths) and a minimum expected basic employment growth apparent in historical data but which can not be identified as a potential expansion of current basic economic activities or a new basic economic development.

BASIC ECONOMIC ACTIVITIY

Those economic activities in a region which produce goods and services primarily for export to markets outside the region.

CUMULATIVE EFFECT

The combined impact of the proposed action and inter-related projects.

DIRECT ECONOMIC EFFECT

The incremental economic characteristic (employment, earnings, or population) which is an element of the proposed action or alternative being evaluated.

EARNINGS

Wage and salary disbursements (in cash or in kind, and including tips and bonuses), other labor income (such as employer contributions to private pension and welfare funds), and proprietors income measured before deductions of income and other personal taxes.

EMPLOYMENT

The number of employed persons by place of residency without regard for multiple job holdings by individuals or place of work.

EMPLOYMENT OPPORTUNITIES

The number of jobs by place of work being offered to the labor force without regard for full and part-time characteristics or employee place of residency.

HOUSING DEMAND

The projected requirements for housing by either a development work force or the total population of a region.

HOUSING SUPPLY

The estimated current or historical housing stock within a region. It includes only year-around housing since seasonal housing is not considered available for meeting permanent or temporary needs of an expanding population. Housing supply is assumed to be equal to housing demand for future projections.

INDIRECT OR INDUCED ECONOMIC EFFECT

The effect of a change in economic characteristics such as employment levels or employee earnings in a basic economic activity upon consumer spending. These effects then induce a response in employment levels or employee earnings in non-basic (service) economic activities. Non-basic industries produce goods and services primarily for use within the region encompassing the related basic economic activities.

INTER-RELATED PROJECTS

Identified potential expansion or new development of basic economic activities which may occur within the geographic area of influence of the proposed action during the same time frame.

LABOR FORCE

The total number of people from age 16 through 65 residing in a region actively seeking employment. The data represent employment plus unemployment by place of residency.

PRESENTLY AVAILABLE

A term used in the public service and facility discussions to indicate current staffing levels for service labor and currently available facilities.

REVENUE SURPLUS

Balanced budgets are mandated for local governments in Wyoming. Accordingly, a negative revenue surplus refers to a potential requirement for governmental action such as an increase in revenue sources from either outside (grants, loans, etc.) or within (fees, taxes, etc.) the jurisdiction and/or a reduction or postponement of expenditures. A positive revenue surplus refers to the potential for reduction of taxes, fees, etc. and/or expansion of services or acquisition of capital facilities.

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